WALKER

Operator's Manual

Safety, Assembly, Operating, and Maintenance Instructions

S14

Please Read and Save These Instructions
For Safety, Read All Safety and Operation Instructions Prior to Operating Machine

Beginning S/N: 128442
Effective Date: 05.05.14
P/N 5000-28

Foreword

Thank you. . .for purchasing a Walker mower. Every effort has been made to provide you with the most reliable mower on the market, and we are sure you will be among our many satisfied customers. If for any reason this product does not perform to your expectations, please contact your local dealer. Every customer is important to us. Your satisfaction is our goal.

Please. . .read this manual thoroughly! This manual is to be used in conjunction with the engine manufacturer's manual for the specific engine on the mower model you have purchased. Before you operate your new mower, please read this entire manual. Some of the information is crucial for proper operation and maintenance of this mower - it will help protect your investment and ensure that the mower performs to your satisfaction. Some of the information is important to your safety, and must be read and understood to help prevent possible injury to the operator or others. If anything in this manual is confusing or hard to understand, please contact your local authorized dealer or call our service department, at (970) 221-5614, for clarification before operating or servicing this mower.

This manual covers Model S14 with the Subaru Robin, EX40 (14 HP) gasoline engine.

All shields and guards must be in place for the proper and safe operation of this machine. Where they are shown removed in this manual, it is for illustration purposes only. **Do not operate this machine unless all shields and guards are in place.**

Specifications given are based on the latest information available at the time this manual was produced for a tractor with standard equipment. Optional equipment is available and may affect the standard specifications listed.

Walker Mfg. Co. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.

Sincerely,
WALKER MANUFACTURING COMPANY

Bob Walker, President

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General Information

HIGHLIGHTED INFORMATION

Walker Manufacturing recommends that any service requiring special training or tools be performed by an authorized Walker Mower dealer. There are several general practices to be aware of in the area of safety. Most accidents associated with the operation or maintenance of a Walker Mower are caused by disregarding basic safety precautions or specific warnings. Such accidents, in most cases, can be prevented by being aware of the dangers present.

Information of special importance has been highlighted in bold type in this manual. Refer to **Safety Instructions** for the meanings of **DANGER, WARNING, CAUTION, IMPORTANT,** and **NOTE.**

GLOSSARY

There are many terms that are either unique to this equipment or that are used as acronyms. The following terms and their definitions will help while using this manual:

- **DECK** is the mowing attachment mounted on the front of the tractor which includes the carrier frame, deck housing, belt or gear drive components, and cutter blades.
- **FORWARD SPEED CONTROL (FSC)** controls the maximum forward speed of the tractor; functioning as a cruise control.
- **GRASS HANDLING SYSTEM (GHS®)** collects mowed material and deposits it in the catcher.
- **GRASS-PAK® SWITCH** is mounted on the grass delivery spout (in the catcher) and activates the "full" signal horn when the grass catcher is full.
- **GROUND DRIVE** refers to the dual transaxles which drive the main wheels.
- **LEFT HAND (LH)** refers to the left-hand side of the tractor when the operator is seated facing forward in the tractor seat.
- **POWER TAKE-OFF (PTO)** transmits engine power to run the cutter blades and GHS blower.
- **POWERFIL®** spreads the mowed material throughout the interior of the grass catcher by an oscillating delivery spout.
- **RIGHT HAND (RH)** refers to the right-hand side of the tractor when the operator is seated facing forward in the tractor seat.
- **SIDE DISCHARGE (SD)** discharges mowed material from the right side of the mower deck.
- **STEERING LEVERS** steer the tractor by controlling the two transaxles.
- **TRACTOR** is the prime mover, including the engine, drivetrain, operator seat, and controls to operate the mower.
- **TRANSAXLE** transmits and controls power from the ground drive belt to the main drive wheel.
- **TRANSAXLE LOCKOUT ARMS** release the transaxles to permit freewheeling the tractor.

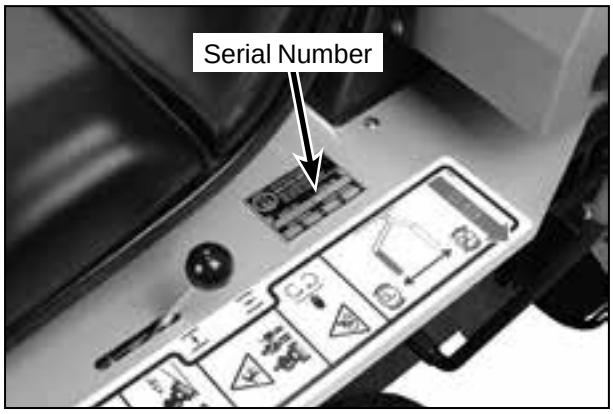
IDENTIFYING NUMBER LOCATIONS

The tractor serial number plate is affixed to the tractor body just below the left rear corner of the seat. The mower deck serial number plate is affixed alongside the angle iron framing on the LH side of the LH mower blade drive. Model and serial numbers are helpful when obtaining replacement parts and maintenance assistance. For ready reference, please record these numbers in the space provided.

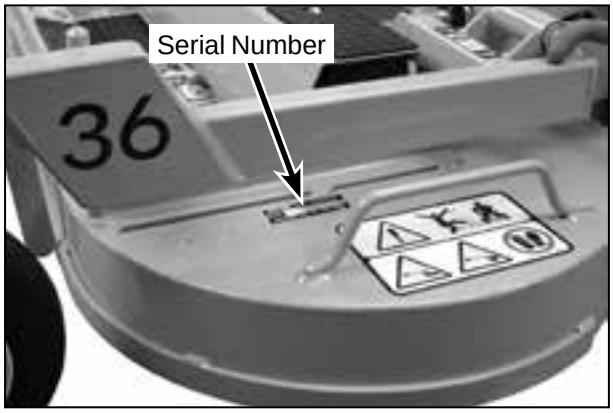
Tractor Model No.	_____
Tractor Serial No.	_____
Deck Serial No.	_____
Engine Model No.	_____
Engine Serial No.	_____
Date of Purchase	_____

Fill In By Purchaser

General Information



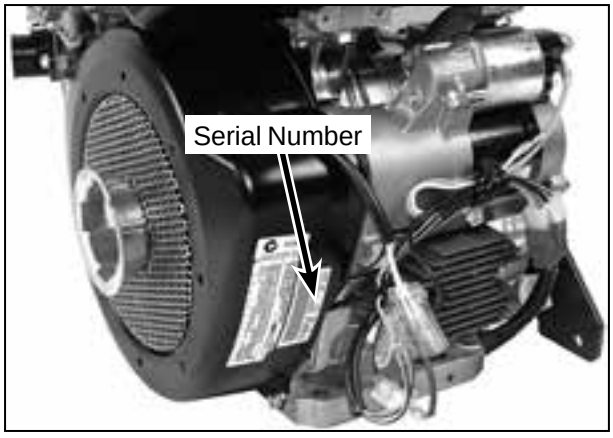
Tractor Serial Number Location



Mower Deck Serial Number Location

ENGINE SERIAL NUMBER LOCATION

Refer to the engine manual that accompanies this manual or the photo below for the location of the engine serial number.



Engine Serial Number Location

SERVICING OF ENGINE AND DRIVETRAIN COMPONENTS

The detailed servicing and repair of the engine, transaxles and gearboxes are not covered in this manual. Only routine maintenance and general service instructions are provided. For the service of these components during the limited warranty period, it is important to find a local, authorized servicing agent of the component manufacturer. **Any unauthorized work done** on these components during the warranty period **may void the warranty.** If you have any difficulty finding an authorized outlet or obtaining warranty service, please contact our Service Department for assistance:

Walker Manufacturing Company
5925 E. Harmony Road
Fort Collins, CO 80528
1-970-221-5614
www.walkermowers.com

Service manuals are available for each of these components from their respective manufacturers as follows:

Subaru Engine	**Subaru Robin America Inc.** A division of Fuji Industries, Ltd. Group 905 Telser Rd. Lake Zurich, IL 60047 800-277-6246 www.subarupower.com
Transaxle	**Hydro-Gear** 1411 South Hamilton St. Sullivan, IL 61951 877-728-7410 www.hydro-gear.com
Gearboxes (Deck)	**Peerless Gear** 1555 South Jackson St. Salem, IN 47167 USA 866-536-8310 www.peerlessgear.com

Specifications

MODEL	S14
ENGINE	
Manufacturer/Model	Subaru Robin, EX40, 1 Cyl. (Air-Cooled)
Displacement cu. in. (cc)	24.65 (404)
Max. Power HP (kW)	14.0 (10.4) @ 3600 RPM
Governed RPM	3600
Max. Torque lb·ft (N·m)	19.9 (27.0) @ 2400 RPM
Idle RPM	1300
Spark Plug Type	NGK BPR5ES
Spark Plug Gap in. (mm)	.030 (0.75)
Crankcase Capacity qt (L)	1.35 (1.3)
Crankcase Lubricant	API SC/SD/SE/SF/SG/SH Grade Oil Only with 10W-30/10W-40 Viscosity or 40W Above 68° F (20° C) Only
Fuel Tank Capacity gal (L)	1.9 (7.2)
Fuel	Regular Grade Unleaded Gasoline (87 Octane Minimum, 10% Ethanol Maximum)
Cooling System	Air Cooled
Air Cleaner	Remote mounted Donaldson Radialseal™ (Walker P/N 5090-1 Primary/5090-3 Safety Filter)
ELECTRICAL SYSTEM	
Battery	12 Volt, 300 CCA (Interstate SP-35)
Charging System	Flywheel Alternator
Charging Output	13 Amp DC (Regulated)
System Polarity	Negative Ground
Ignition	Transistorized Electronic Magneto
Starter	12 Volt Electric Key and Solenoid Operated
Interlock Switches	Ignition Lockout by Seat Switch, Transmission Neutral and Blade Clutch
Circuit Breaker	Replaceable Fuse (20A)
TRANSMISSION	
Manufacturer/Model	Dual, Independent Hydro-Gear® ZT3100 Integrated Transaxles
Steering	Hand Lever Control / Individual Wheel
Forward Speed Control	Precision Friction Lock Lever, Cruise Control, with Neutral-Park Position
Service Brake	Dynamic Braking through Transaxles
Parking Brake	Internal Mechanical Cog Lock for each Transaxle (Single Lever Control)
Neutral	Transmission Release by Manual Dump Valve

Specifications

MODEL	S14
TRANSMISSION (continued)	
Final Drive	Transaxle Direct to Drive Wheel
Transmission Fluid	
Factory Service	20W-50 Multi-Viscosity Motor Oil (Minimum SL Grade Oil)
Transmission Oil Capacity fl oz (ml)	79 (2336)
Transmission Cooling	Cooling Fan Mounted on Drive Pulley
Oil Filter	Hydro-Gear® P/N 52114 (Walker P/N 2026-6)
Ground Travel Speed	
Forward MPH (km/h)	0-6.5 (0-10.5) Infinitely Variable
Reverse MPH (km/h)	0-5 (0-8) Infinitely Variable
BLADE DRIVE	
PTO Shaft	Sliding Spline Shaft with Two (2) High-Speed U-Joints
Blade Drive Clutch and Brake	Manual Belt Tightener Clutch and Band Brake [Stops Blades within Five (5) Seconds of Disengagement]
TIRE SIZE	
Deck Caster	8 x 3.00-4 (Pneumatic 4-Ply, Optional Foamed Rubber)
Drive	18 x 7.00-8 (Pneumatic 4-Ply, Standard) 18 x 8.50-10 (Pneumatic 4-Ply, Optional Low-Profile)
Tailwheel	13 x 6.50-6 (Pneumatic 4-Ply)
TIRE PRESSURE PSI (KPA)	
Deck Caster Wheel	20 (137)
Drive	15 (103)
Tailwheel	20 (137)

Specifications

MODEL	S14
DIMENSIONS (Tractor and Mower)	
Length in. (cm)	
Tractor Only	63.75 (162)
Tractor Wheel Base	43 (109)
Tractor with Tilted Deck (Approximate)	77 (196)
Tractor with 36" Collection Deck (DC36R-1)	87 (221)
Tractor with 42" Collection Deck (DC42-1)	88.5 (225)
Width in. (cm)	
Tractor Only (Outside Tire)	36 (91.5)
Tractor with 36" Collection Deck (DC36R-1)	37.25 (95)
Tractor with 42" Collection Deck (DC42-1)	43.25 (110)
Height in. (cm)	
Tractor	46.75 (119)
Weight lb (kg)	
Tractor Only	595 (270)
Tractor with 36" Collection Deck (DC36R-1)	766 (347)
Tractor with 42" Collection Deck (DC42-1)	786 (356)
GHS SYSTEM	
Blower	12.5 in. Diameter, Three-Blade Paddle Wheel
Blower Brake	Band Brake [Works in Combination with PTO Clutch, Stops Blower within Five (5) Seconds of PTO Disengagement]
Max. Blower RPM	2900
Grass Catcher Capacity gal / bu / L	65 / 7 / 246
Full Signal	Oscillating Vane Switch Mounted on Grass Delivery Spout Triggers Horn Signal
Powerfil ®	Oscillating Delivery Spout Driven by 12 Volt Electric Gearmotor Spreads Material throughout Interior of Catcher @ 35 Cycles/Min

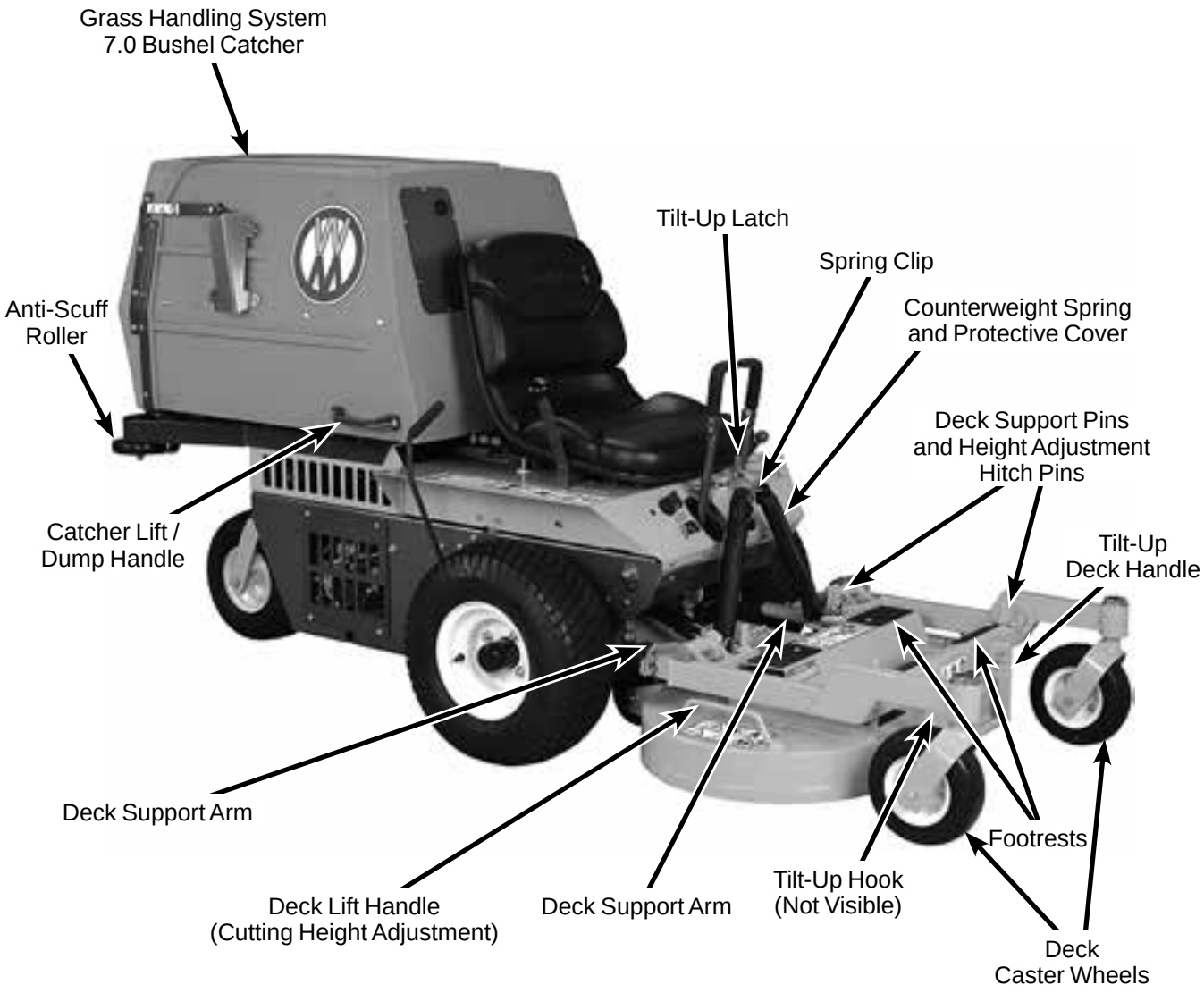
Specifications

MODEL	S14
MOWER DECK	
Recommended Cut Width	36 or 42 in. (91 or 107 cm) (Collection, SD, Mulch)
Cutting Height	1 to 4 in. (2.5 to 10 cm) in 1/2 in. (1 cm) Increments
Deck Suspension	Independent Torsion-Flex Frame with Caster Wheels and Counterweight Springs
DRIVE BELTS	
Engine	Walker P/N 5234-3
Ground Drive	Walker P/N 5232-1
PTO Drive	Walker P/N 5234-4
SEAT	Contour-Molded, with Nylon Backed Vinyl Cover and Integral Foam Cushion
FRAME/BODY CONSTRUCTION	
Frame	All Welded Unitized Steel Chassis
Body	14 Gauge Steel
Deck	11 Gauge Steel
GHS Catcher and Chutes	Molded Cross-Linked Polyethylene (UV Stabilized)

NOTE: The manufacturer reserves the right to make changes in specifications shown herein at any time without notice or obligation. The specifications listed are for a standard configuration tractor, and may change with the addition of optional equipment.

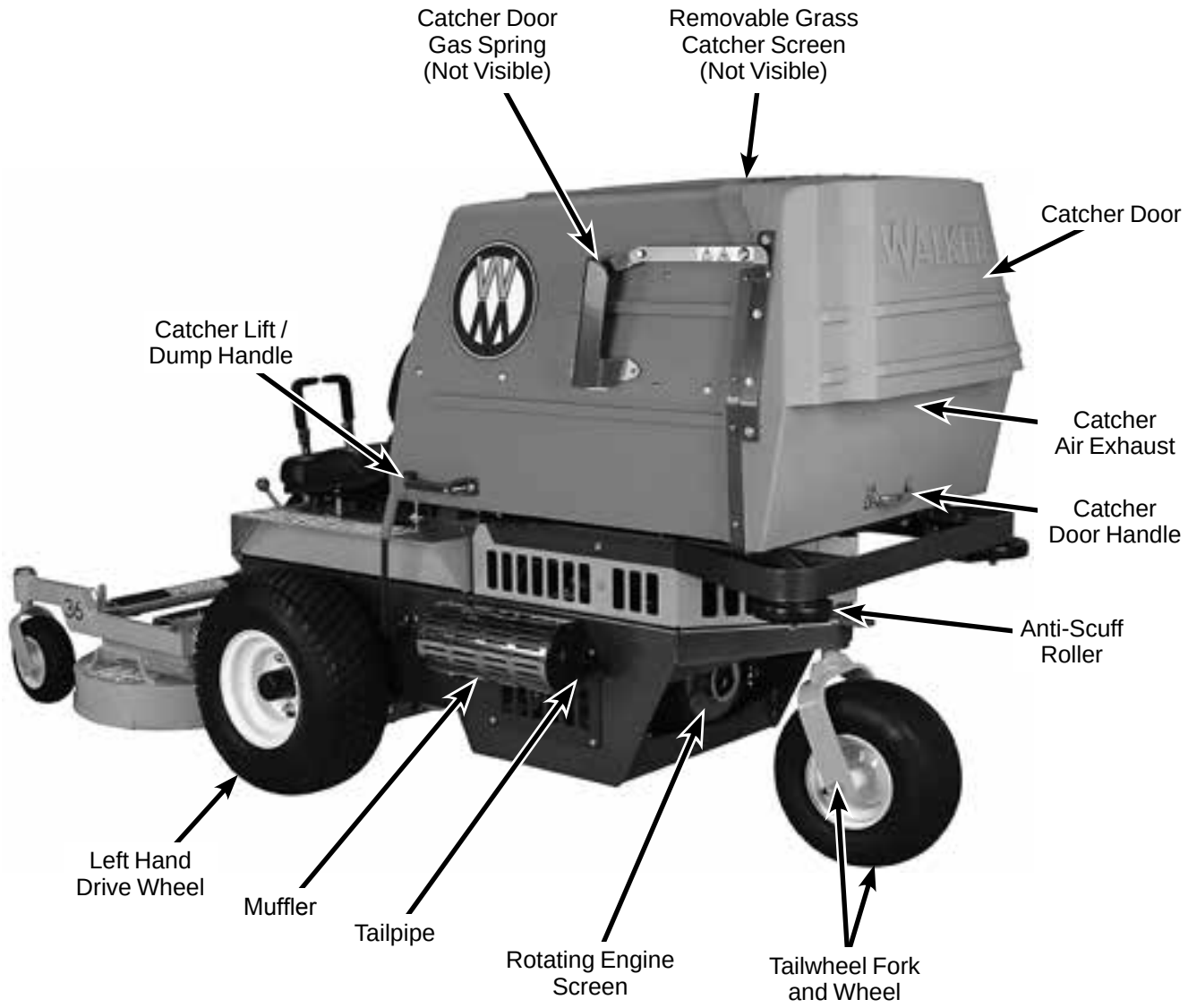
Component Identification

NOTE: Control Identification shown in **Operating Instructions** section.



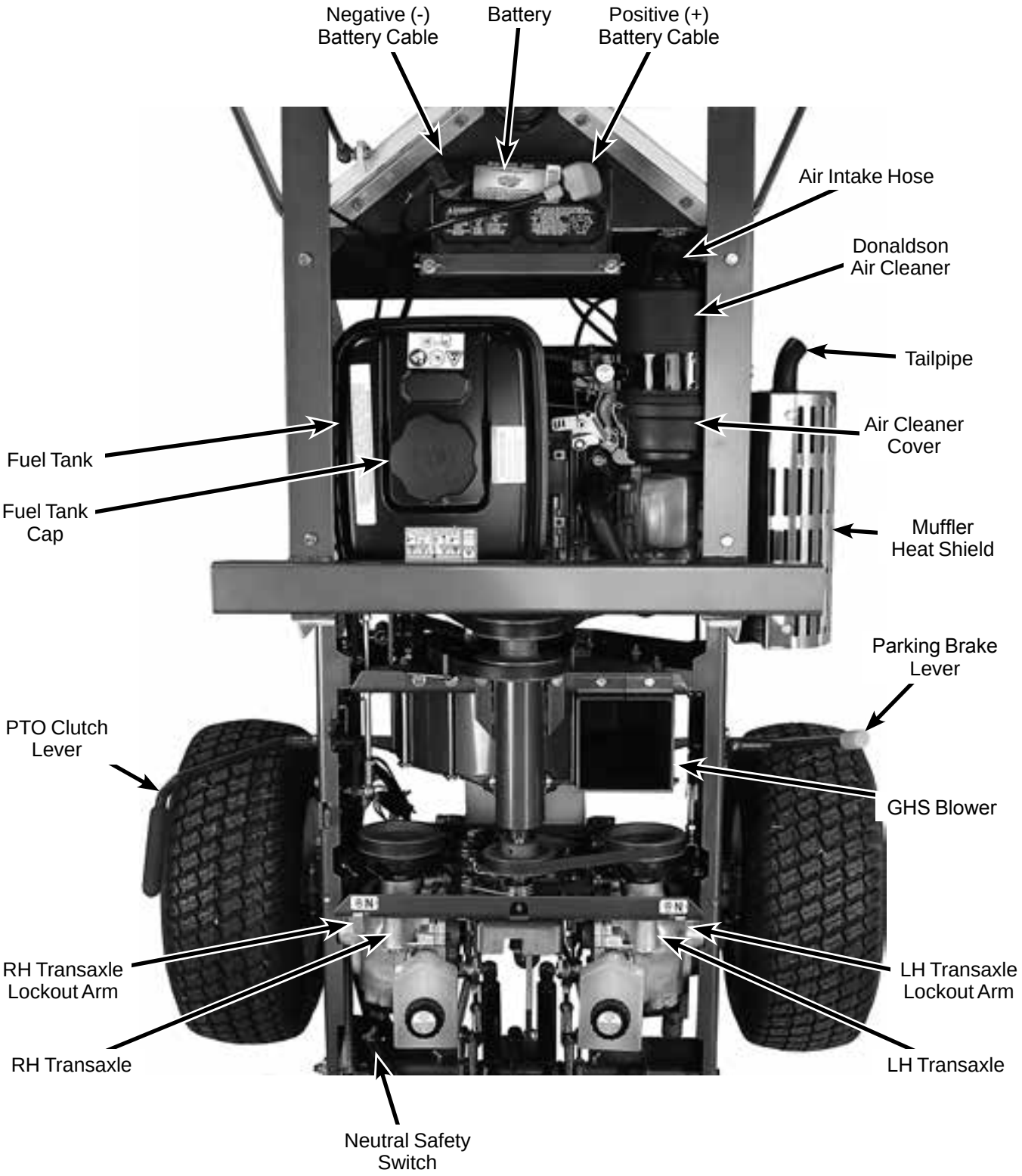
Front View and Right Side View

Component Identification



Rear View and Left Side View

Component Identification



Top View (Body Raised)

Safety Instructions - Before Operating

Pay particular attention to any information labeled **DANGER, WARNING, CAUTION, IMPORTANT,** and **NOTE** in this manual.

When you see the Safety Alert Symbol ( ), read, understand, and follow the instructions. Failure to comply with safety instructions may result in personal injury.

The seriousness or degree of importance of each type of information is defined as follows:

DANGER

An IMMEDIATE hazard that WILL result in severe personal injury or DEATH, if warning is ignored and proper safety precautions are not taken.

WARNING

A POTENTIAL hazard that COULD result in severe personal injury or DEATH, if warning is ignored and proper safety precautions are not taken.

CAUTION

Possible hazards or unsafe practices that MAY result in MODERATE personal injury or property damage, or machine damage, if warning is ignored and proper safety precautions are not taken.

IMPORTANT: Identifies mechanical information demanding special attention, since it deals with the possibility of damaging a part or parts of the machine.

NOTE: Identifies information worthy of special attention.

Walker Manufacturing cannot predict every potentially dangerous situation. Therefore, items labeled as such in this manual do not cover all conceivable situations. Any person using procedures, tools, or control techniques not recommended by Walker Manufacturing must take full responsibility for safety.

The Walker Rider Lawnmower has been designed with many safety features to protect the operator from personal harm or injury. However, it is necessary for the operator to use safe operating procedures at all times. **Failure to follow safety instructions contained in this manual may result in personal injury or damage to equipment or property.**

If you have any questions concerning setup, operation, maintenance, or safety, please contact your authorized Walker Mower dealer or call Walker Manufacturing Company at (970) 221-5614.

BEFORE OPERATING

1. **Read and understand the contents of this Operator's Manual before starting and operating the machine.** Become thoroughly familiar with all machine controls and how to stop the machine and disengage the controls quickly. Replacement Operator's Manuals are available by sending the Model and Serial Number to:

   Walker Manufacturing Company
   5925 East Harmony Road
   Fort Collins, CO 80528

2. **Never allow children to operate rider mower.** Do not allow adults to operate without proper instruction.

3. **Clear the area to be mowed of any foreign objects** which may be picked up and thrown by cutter blades. Pick up all sticks, stones, wire, and any other debris.

4. Keep everyone, especially children and pets, a safe distance away from the area being mowed. **Do not mow with bystanders in the area.**

5. Do not operate the machine barefoot or wearing sandals, sneakers, tennis shoes, or similar lightweight footwear. **Wear substantial protective footwear.**

Safety Instructions - Before Operating

6. Do not wear loose fitting clothing that could get caught in moving parts. Do not operate this machine while wearing shorts; **always wear adequate protective clothing,** including long pants. Wearing safety glasses, safety shoes, and a helmet is advisable and required by some local ordinances and insurance regulations.

7. Prolonged exposure to loud noise can cause impairment or loss of hearing. **Operator hearing protection is recommended;** particularly for continuous operation of the GHS Model due to blower noise level. Wear a suitable hearing protective device, such as earmuffs or earplugs.

8. **Keep all protective shields and safety devices in place.** If a protective shield, safety device, or decal is damaged, unusable, or missing, repair or replace it **before** operating the machine.

9. **Be sure interlock switches are functioning correctly,** so the engine cannot be started unless the Forward Speed Control lever is in the **NEUTRAL-PARK** position, and the PTO clutch is in the **DISENGAGED** position. Also, the engine should stop if the operator lifts off the seat with either the Forward Speed Control (FSC) out of the **NEUTRAL-PARK** position or the PTO clutch in the **ENGAGED** position.

10. **Handle gasoline with care.** Gasoline is highly flammable and its vapors are explosive:

    a. Use an approved fuel container.

    b. Never add fuel to a running engine or hot engine (allow hot engine to cool several minutes).

    c. Keep matches, cigarettes, cigars, pipes, open flames, or sparks away from the fuel tank and fuel container.

    d. Always fill the fuel tank outdoors using care. Fill to about one inch from the top of the tank. Use a funnel or spout to prevent spilling.

    e. Replace the machine fuel cap and container cap securely and clean up any spilled fuel before starting the engine.

11. **Never attempt to make any adjustments while the engine is running,** except where specifically instructed to do so.

12. The electrical system battery contains sulfuric acid. Avoid any contact with skin, eyes, and clothing. Keep the battery and acid out of reach of children.

WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Safety Instructions - Operating

1. **Operate the mower only in daylight** or in good artificial light with good visibility of the area being mowed.

2. Sit on the seat when starting the engine and operating the machine. Keep feet on the deck footrests at all times when the tractor is moving and/or mower blades are operating. **Never operate the tractor without a deck or implement installed.**

3. For a beginning operator, **learn to steer (maneuver) the tractor with a slow engine speed before attempting any mowing operation.** Be aware that, with the front mounted mower configuration, the back of the tractor swings to the outside during turns.

> ***DANGER***
>
> **Do not mow around overhanging tree branches or bushes at the same height as the operator's torso and head where inadvertent contact may cause injury.**

4. Remember, for an emergency stop, the forward motion of the tractor can always be stopped by pulling the Forward Speed Control (FSC) into the **NEUTRAL-PARK** position.

5. If either of the transmission drive belts break during slope operation, the machine will freewheel down the slope. **To maintain control,** immediately (1) Release the steering levers and simultaneously (2) Move the FSC to the **NEUTRAL-PARK** position. When the machine is stopped or moving slowly, engage the parking brake.

   NOTE: The emergency stop procedure is exactly the same procedure used to normally stop and park the machine.

6. Disengage the blade clutch and put the FSC in the **NEUTRAL-PARK** position before starting the engine (an ignition interlock switch normally prevents starting of the machine if these controls are in the **OPERATING** position).

7. **Do not operate machine if the operator presence safety switch system is not working.** Verify proper operation by having the operator lift off the seat with the engine running and moving two controls, one at a time; (1) Move the FSC lever out of the **NEUTRAL-PARK** position, and (2) Engage the PTO Clutch. Moving either control should stop the engine immediately.

8. **Do not run the engine in a confined area without adequate ventilation.** Exhaust fumes are hazardous and can be deadly.

9. **Do not carry passengers** - maximum seating capacity is one (1) person.

10. Watch for holes, rocks, and roots in the terrain and for other hidden hazards. When mowing tall grass, mow higher than desired to expose any hidden obstacles. Then, clean the area and mow to the desired height.

11. **Avoid sudden starts or stops.** Before backing the machine up, look to the rear to be sure no one is behind the machine. Watch carefully for traffic when crossing or working near roadways.

12. When moving forward, **do not** suddenly put the tractor in reverse by rapidly pulling on the steering levers, especially when going downhill, as this can lift the tractor tail wheel off the ground and set up a bucking motion due to operator overcontrol. If bucking does occur, immediately stop the bucking action by pulling the Forward Speed Control (FSC) lever into the **NEUTRAL-PARK** position.

13. Disengage the blade drive when transporting the machine across drives, sidewalks, etc. **Never raise the mower deck while blades are rotating.**

> ***DANGER***
>
> **Do not mow or drive the tractor within 5 feet (1.5 meters) of an embankment or retaining wall with drop off.**

Safety Instructions - Operating

14. **The maximum recommended slope operating angle is 15 degrees or 26% grade.** When operating the machine on a slope, reduce speed and use caution to start, stop, and maneuver. To prevent tipping or loss of control of the machine, avoid sharp turns or sudden changes in direction. **Do not operate the machine on a slope greater than 15 degrees.**

15. **Never adjust cutting height with the engine running. Before** adjusting cutting height or servicing, disengage the blade clutch (PTO), stop the engine, and remove the ignition key. Wait for all movement to stop before getting off the seat.

    NOTE: A blade/blower brake should normally stop drive line rotation within five (5) seconds of disengaging the PTO clutch.

16. For side discharge mower decks, **do not operate with the grass deflector shield removed.** Keep the deflector in the lowest possible position.

17. When using the tilt-up deck, **observe the following:**

    a. Do not move tractor with deck in tilt-up position.

    b. Never tilt body forward with deck in tilt-up position.

18. **Do not operate the machine with the grass catcher in the DUMP position or with the back door OPEN.** Dangerous projectiles may be thrown out of the discharge chute or the back of the grass catcher.

19. **Use care when closing the grass catcher door.** Keep fingers and hands away from the hinge and pinch points when the door is being closed. Also, keep fingers and hands clear of the door frame. The door is held closed with springs and the door may slam shut with considerable force.

20. **In case of a clogged or plugged mower deck or GHS catching system:**

    a. Disengage the blade clutch (PTO) and turn the engine off before leaving the seat.

    b. **LOOK** to make sure blade drive shaft and blower drive pulley movement has stopped before trying to unclog the system.

    c. Disconnect the spark plug wire.

    d. Never place hands under the deck or in the GHS blower - use a stick or similar tool to remove clogged material.

21. If the cutting blades strike a solid object or the machine begins to vibrate abnormally, **immediately disengage the blade clutch (PTO), stop the engine, and wait for all moving parts to stop.** To prevent accidental starting, disconnect the spark plug wire. Thoroughly inspect the mower and repair any damage before restarting the engine and operating the mower. Make sure cutter blades are in good condition and blade nuts are torqued to 60 lb·ft (81 N·m) for gear driven decks, and blade bolts torqued to 70 lb·ft (90 N·m) for belt driven decks.

22. **Do not touch the engine or muffler while the engine is running** or immediately after stopping the engine. These areas may be hot enough to cause serious burns.

23. When leaving the machine unattended, **disengage the blade clutch (PTO), stop the engine, and remove the key.**

CAUTION

Use leg muscles and firm footing when lifting the catcher to dump; avoid bending at the waist and using back muscles in order to prevent back injury.

Safety Instructions - Maintenance

1. To prevent accidental starting of the engine when servicing or adjusting the machine, remove the key from the ignition switch and disconnect the spark plug wire.

2. **To reduce fire hazards,** keep the engine free of grass, leaves, excessive grease, and dirt.

3. Keep all nuts, bolts, and screws tight to ensure the machine is in a safe, working condition. Check the blade mounting nuts frequently, making sure they are tight.

4. **Perform only maintenance instructions described in this manual.** Unauthorized maintenance operations or machine modifications may result in unsafe operating conditions.

5. If the engine must be running to perform a maintenance adjustment, keep hands, feet, and clothing away from moving parts. **Do not wear jewelry or loose clothing.**

6. **Always use the proper engine service manual when working on the engine.** Unauthorized maintenance operations or modifications to the engine may result in unsafe operating conditions.

7. Altering the equipment or engine in any manner which adversely affects its operation, performance, durability, or use will **VOID the warranty** and may cause hazardous conditions.

8. Never attempt to disconnect any safety devices or defeat the purpose of these safety devices.

9. Do not change the engine governor settings or overspeed the engine. The governor has been factory-set for maximum-safe engine operating speed.

10. **Use genuine factory replacement parts.** Substitute parts may result in product malfunction and possible injury to the operator and/or others.

11. **Use care when charging the battery** or performing maintenance on the battery and electrical system:

    a. Make sure the battery charger is unplugged before connecting or disconnecting cables to the battery.

    b. Charge the battery in a well-ventilated space, so gases produced while charging can dissipate. Make sure the battery vents in the caps are open.

    c. Keep sparks, flames, and smoking materials away from the battery at all times. To avoid sparks, use care when removing battery cables from posts.

    d. Disconnect both battery cables before unplugging any wiring connectors or making repairs on the electrical system.

    IMPORTANT: Keep all applicable manuals immediately accessible to anyone who may operate or service this machine.

Safety Instructions

SAFETY, CONTROL, AND INSTRUCTION DECALS

Safety, Control, and Instruction Decals are installed on the machine; if any are missing, illegible, or damaged, a replacement should be ordered and installed before putting the machine into operation. The Decal Part Number is listed below and in the Parts Manual.

1.

2.

Location: Adjacent to Blower Discharge Chute through Body
Part Number: 8600-4

1. Warning - rotating impeller is a cutting/dismemberment hazard to fingers and hands.
   - Never reach down into the blower discharge chute.
2. Warning - thrown object hazard.
   - Never engage the PTO with grass catcher raised.

REMOVE SCREEN FOR CLEANING
TO RELEASE AND REMOVE SCREEN, OPEN CATCHER DOOR AND USE KNOBS TO PUSH BACK OF SCREEN FORWARD AND DOWN
5869

Location: Rear of Grass Catcher Exhaust Screen
Part Number: 5869

1.

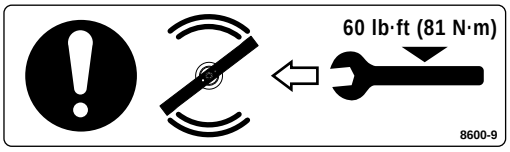
Location: Catcher Door Hinge Bar, LH and RH Sides
Part Number: 8600-10

1. Caution - Pinch point.
   - Keep all body parts clear when closing grass catcher door.

1.

Location: Top of Fuel Tank
Part Number: 8600-12

1. Warning – carbon monoxide (CO) poisoning hazard.
   - CO emitted by a running engine can be deadly.
   - Do not operate indoors or in other enclosed areas.



1.

Location: Gearbox Cover (Gear Drive Decks Only)
Part Number: 8600-9

1. Tighten blade nuts on gear driven decks to 60 lb·ft (81 N·m).

1.

Location: Chassis Member Behind Transaxles
Part Number: 9804-1

1. Neutral Lock
   - Lift and move into slot to unlock transmission and allow machine to freewheel.

Safety Instructions

SAFETY, CONTROL, AND INSTRUCTION DECALS

Safety, Control, and Instruction Decals are installed on the machine; if any are missing, illegible, or damaged, a replacement should be ordered and installed before putting the machine into operation. The Decal Part Number is listed below and in the Parts Manual.

Location: Each End of Mower Deck
Part Number: 8600-28

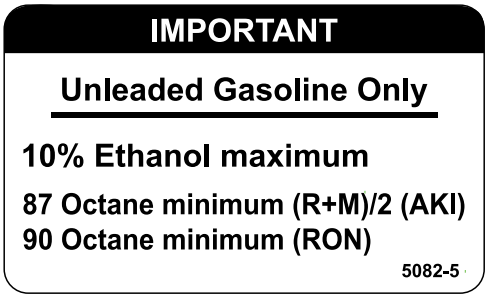
1. Warning – thrown object hazard.
   - Keep bystanders away from the machine when operating.
   - Clear lawn of debris before operating.
   - Keep any discharge deflector in place and in the lowest position.
2. Warning – rotating mower blades are a cutting/dismemberment hazard to hands and feet.
   - Keep all body parts away from rotating mower blades.
   - Do not step on end of deck.

Location: Deck Carrier Frame
Part Number: 8600-14

1. Warning – do not operate the machine with the deck tilted up.

Location: Deck Carrier Frame
Part Number: 8600-15

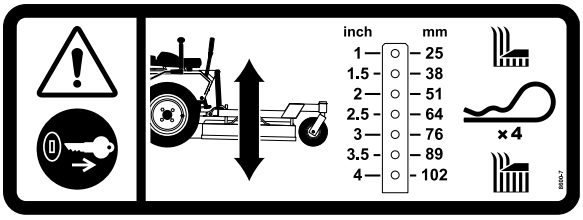
1. Warning – lock deck tilt-up hinge before operating the machine.



Location: Top of Fuel Tank
Part Number: 5082-5

Location: Deck Discharge Shield
(SD Decks Only)
Part Number: 5848-2

1. Warning – thrown object hazard.
   - Always keep the discharge shield in the lowest position when operating.
   - Do not remove the discharge shield.



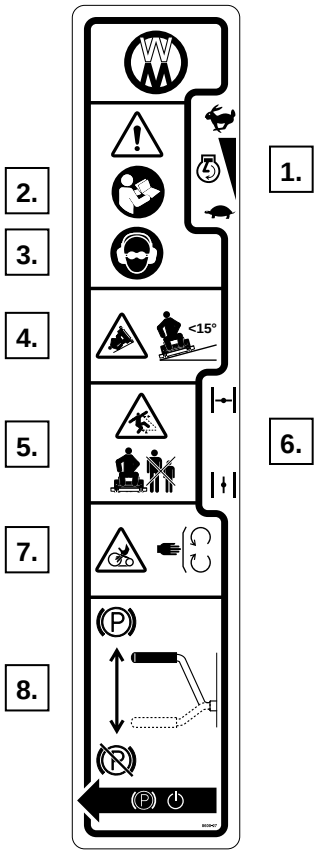
Location: Deck Gearbox Cover
Part Number: 8600-7

1. Warning - stop engine and remove ignition key before adjusting deck cutting height.

Safety Instructions

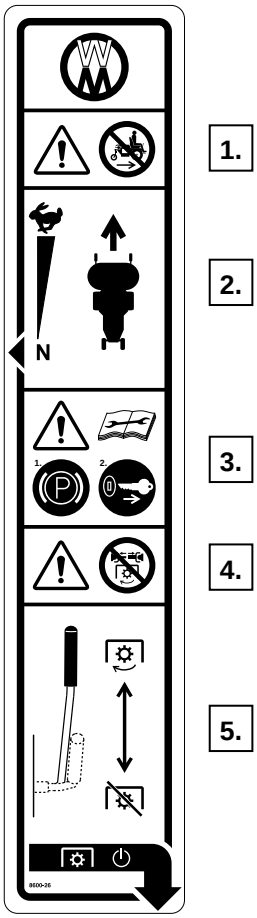
SAFETY, CONTROL, AND INSTRUCTION DECALS

Safety, Control, and Instruction Decals are installed on the machine; if any are missing, illegible, or damaged, a replacement should be ordered and installed before putting the machine into operation. The Decal Part Number is listed below and in the Parts Manual.



Location: LH Fender
Part Number: 8600-27

1. Throttle
2. Warning – read Operator's Manual before operating the machine.
3. Warning – wear eye and ear protection when operating the machine.
4. Warning – roll-over hazard.
   - Do not operate on slopes greater than 15 degrees.
5. Warning – thrown object hazard.
   - Keep bystanders away from the machine when operating.
6. Choke
7. Warning – entanglement hazard.
   - Keep all guards in place while engine is running.
8. Parking brake
   - Move lever forward to engage Parking Brake; back to disengage.



Location: RH Fender
Part Number: 8600-26

1. Warning – do not operate the machine without a deck or other implement attached.
2. Forward Speed Control
   - Move lever forward to increase speed; back to stop.
3. Warning – read Operator's Manual before servicing or performing maintenance.
   - Engage parking brake.
   - Remove ignition key.
4. Warning – do not engage PTO clutch with PTO shaft disconnected.
5. PTO Clutch Lever
   - Move lever forward to engage PTO clutch; back to disengage.

Assembly Instructions

SETUP INSTRUCTIONS

Walker Mowers are shipped partially assembled to our distribution network, and are typically assembled by the selling dealer. For any additional assembly besides the following, contact your Walker dealer.

Tire Installation (Tractor)

- Install the drive tires using the eight (8) lug bolts that are supplied with the owner's packet of materials. Bolts are torqued to 75 to 85 lb·ft (102 to 115 N·m).

- Check and adjust the inflation of the tires. The tire inflation recommendations are:

Drive	=	15 PSI (103 kPa)
Tailwheel	=	20 PSI (137 kPa)

Battery Service

Raise front mower body up for battery access (refer to **Front Body Latch Release** in **Operating Instructions**). Check the battery for electrolyte level and charge. The electrolyte level should be at the bottom of the vent wells [1/4 to 1/2 in. (6 to 13 mm) above plates]. If the specific gravity is less than 1.225, the battery needs charging. If the battery has been shipped dry, or is wet but needs service, refer to the following instructions.

IMPORTANT: Make sure battery is securely mounted in the frame. A loose battery may cause damage to the case resulting in acid leakage and severe damage to the machine. A hazard may be created by damage to critical working parts and safety systems.

Wet Battery Service

If the battery has been shipped wet, but the electrolyte level is low or the battery needs to be charged then:

1. Fill each battery cell with distilled water to the bottom of the vent wells.

2. Charge battery. Refer to *Battery Charging* in this section.

Dry Battery Service

DANGER

Activating a battery can be dangerous. The battery should be taken to a reliable service station, battery store, or power equipment dealer where a trained technician can activate the battery safely. DO NOT attempt to activate the battery unless you are experienced in battery service work. The following activation and charging instructions are provided for use by a trained battery technician.

DANGER

Battery electrolyte is a poisonous and corrosive sulfuric acid solution.

- **Avoid spillage and contact with skin, eyes, and clothing - causes severe burns.**

- **To prevent accidents, wear safety goggles and rubber gloves when working with electrolyte.**

- **Neutralize acid spills with baking soda and water solution.**

To fill (activate) battery with electrolyte (if battery has been shipped dry):

1. Remove the battery protector plate, disconnect the battery cables and lift the battery out of the tray.

   IMPORTANT: Battery must be removed from the mower before filling with electrolyte.

   IMPORTANT: Obtain and use only battery grade sulfuric acid electrolyte with a 1.265 specific gravity to activate the battery. **DO NOT** use water or any other liquid during initial activation.

2. Remove the filler caps and carefully fill each cell until the electrolyte is just above the plates.

3. After the battery is filled with electrolyte, replace the filler caps and charge the battery. Refer to *Battery Charging*.

Assembly Instructions

Battery Charging

DANGER

BATTERIES PRODUCE EXPLOSIVE GASES

- **Charge the battery in a well-ventilated area, so that gases produced while charging can dissipate.**
- **Keep sparks, flames, and smoking materials away from the battery at all times.**
- **Make sure the battery cap vents are open after the battery is filled with acid (check manifold vent on each cap).**
- **Make sure the battery charger is unplugged before connecting or disconnecting cables to the battery.**

1. Charge the battery at 15 amps for 10 minutes. **DO NOT** exceed 20 amps maximum recommended charging rate. Charge until specific gravity is at least 1.250. Total charging time should not exceed one (1) hour.
2. After charging the battery, adjust the electrolyte level to the bottom of the vent wells [1/4 to 1/2 in. (6 to 13 mm) above the plates].

   IMPORTANT: DO NOT overfill the battery. Electrolyte will overflow through the vented caps onto parts of the machine and **WILL** result in severe corrosion.
3. Install battery.

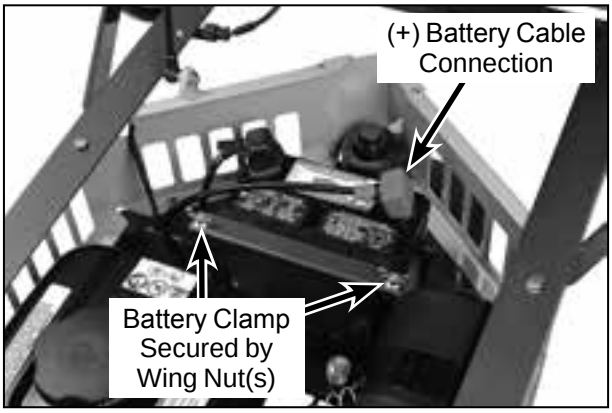
Battery Installation

IMPORTANT: Make sure battery is securely mounted in the frame. A loose battery may cause damage to the case resulting in acid leakage and severe damage to the machine. A hazard may be created by damage to critical working parts and safety systems.

Install the battery in the mower as shown in **Battery Installation** photo. Connect the positive (+) first and then the negative (-) cable to the proper battery terminal **[red cable and boot connects to the Positive (+) terminal].** Slide the rubber boot up and over the battery post, making sure it covers the post completely **to prevent an electrical short.**

WARNING

Make sure the battery cap vents are open. Improper venting of the battery COULD cause a battery explosion.



Battery Installation

Mower Deck Assembly

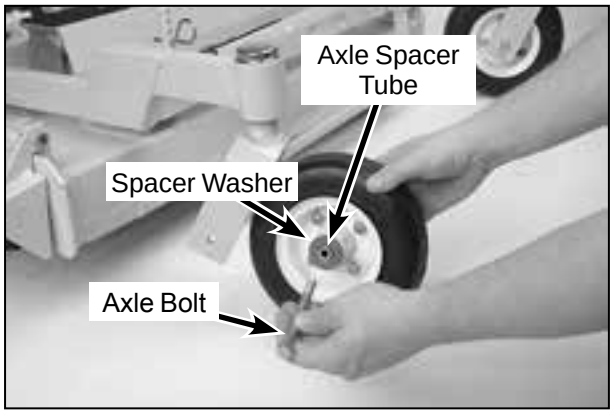
Deck Caster Wheels Installation

1. Remove the bolt, nut, axle spacer tube, and spacer washers from each deck caster wheel fork.

   NOTE: Spacer washers are used only when the optional semi-pneumatic deck wheels are installed.
2. Fit the axle spacer tube through the wheel hub, position the spacer washer on each side of the hub (if used), and fit the assembly into the wheel fork.
3. Insert the 3/8-16 x 4-1/2 in. bolt through the wheel fork with the bolt head to the outside and install the 3/8-16 in. Keps nut.

Assembly Instructions

4. Tighten the bolt and nut until the axle spacer tube bottoms against the inside of the wheel fork (will not turn) while the wheel and spacer washers (if used) spin freely without binding.



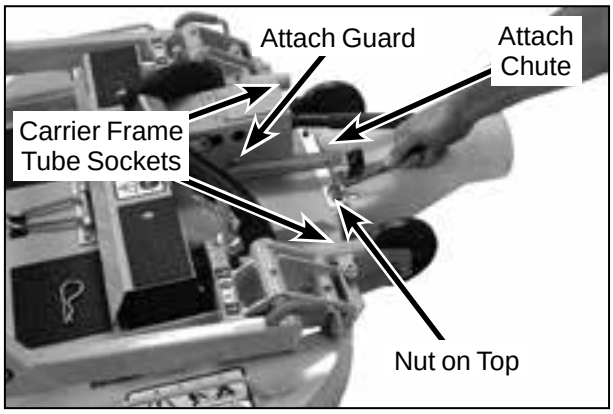
Deck Caster Wheel Installation

NOTE: If semi-pneumatic wheels are installed, make sure the spacer washers fit over the spacer tube and are not caught between the fork and the end of the tube. The washers should move freely on the axle spacer tube.

5. Grease the caster wheel bearings and caster pivot bearings - one grease fitting for each wheel and each pivot.

Deck Discharge Chute Installation (GHS Rear Discharge Models Only)

Mount the discharge chute hinge on top of the deck discharge opening using two (2) 1/4-20 x 1/2 in. button head socket cap screws and 1/4-20 ESNA nuts. Position the screws with the heads inside the chute and the nuts on the outside. Attach spring for tilt-up action from chute to bracket on deck.



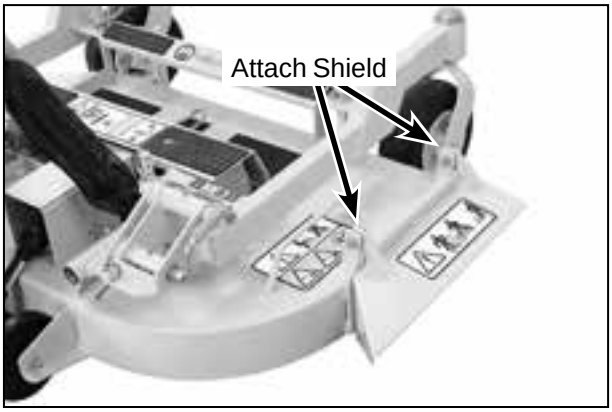
Discharge Chute and PTO Shaft Guard Installation on Rear Discharge Deck

Deck Discharge Deflector Shield Installation (Side Discharge Models Only)

Attach the side discharge deflector shield using two (2) 3/8-16 x 1-1/4 in. bolts, 3/8-16 ESNA nuts, and 3/8 in. wave spring washers. The wave washers fit between the two hinging surfaces. Tighten the nuts until the shield moves freely but is not loose.

WARNING

DO NOT operate the machine without the grass deflector shield attached and in the lowest possible position.



Discharge Shield Installation on Side Discharge Deck

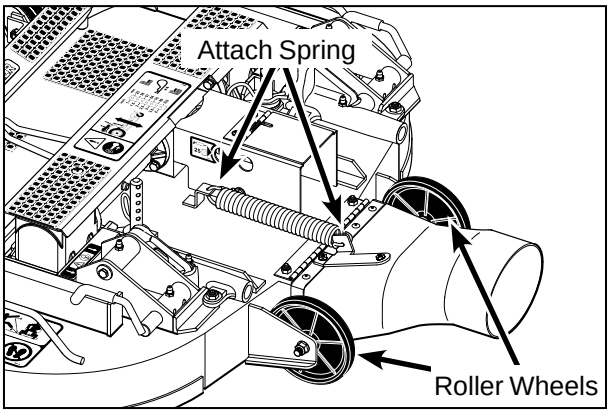
PTO Shaft Guard Installation

Position the shaft guard as shown and mount with two (2) 1/4-20 x 1/2 in. bolts.

Tilt-Up Roller Wheel Installation

Mount the two (2) tilt-up roller wheels on the brackets on the rear skirt of the deck housing using the P/N 8490 axle bolt, 3/8 in. wave spring washer and 3/8-16 in. Whiz locknut. Tighten the axle bolt until the wheel rolls freely, but is not loose.

Assembly Instructions

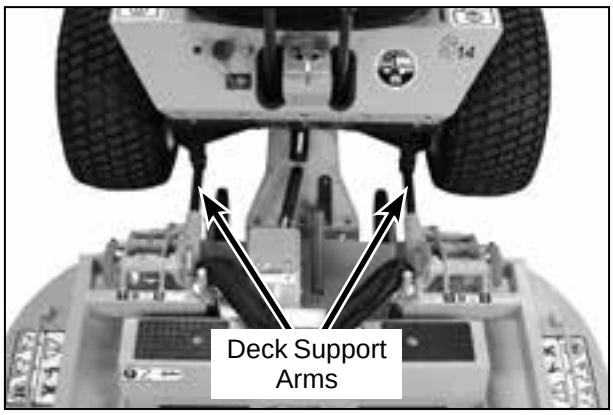


Tilt-Up Spring and Roller Wheel Installation on Rear Discharge Deck

Mower Deck Installation on Tractor

Deck Installation

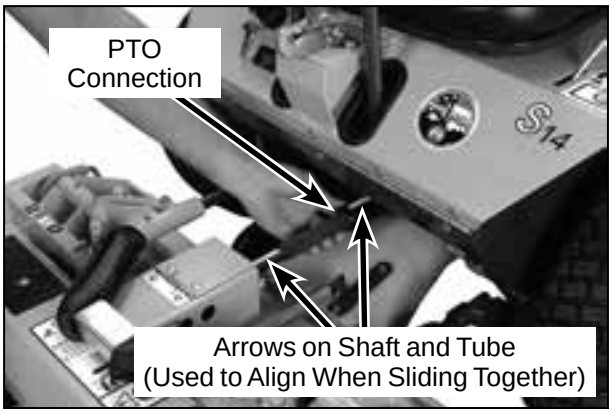
1. Lightly grease each deck support arm (2) on the tractor. Refer to **Mower Deck Installation** photo for location of deck support arm.



Mower Deck Installation

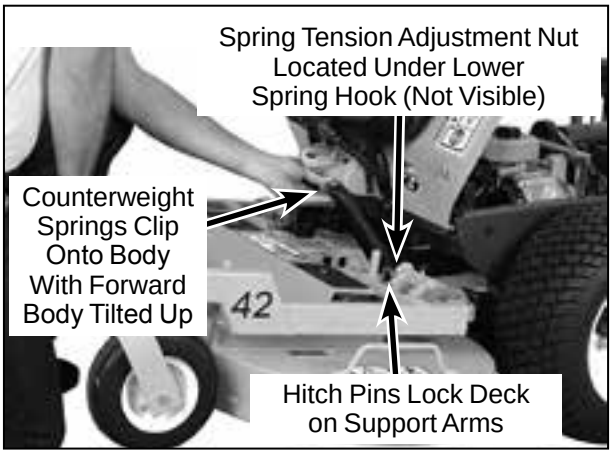
2. Engage the deck carrier frame tube sockets on the tractor support arms (refer to **Discharge Chute and PTO Shaft Guard Installation** photo for socket location). Slide the deck onto the support arms approximately 3 in. (76 mm).

3. Align and connect the splined PTO shaft and socket halves, as shown in **PTO Shaft Connection** photo. The PTO shaft has a pilot end to ease alignment of shaft; fit shaft end into socket and rotate shaft until the splines line up as indicated by arrows, then slide together.



PTO Shaft Connection

4. Install the hitch pin through the hole on the end of each support arm to lock the deck in place (refer to **Deck Counterweight Spring Installation** photo). Two (2) hitch pins are included in the Owner's Packet of materials.


Spring Tension Adjustment Nut Located Under Lower Spring Hook (Not Visible)
Counterweight Springs Clip Onto Body With Forward Body Tilted Up
Hitch Pins Lock Deck on Support Arms

Deck Counterweight Spring Installation

5. Raise mower body (instead of lifting the front of deck) and clip the counterweight springs to the receptacle on front of body. Lower the body to tension the springs. (Refer to **Deck Counterweight Spring Installation** photo.)

6. With the counterweight springs connected, the weight on the deck caster wheels should be 15 to 25 lb (6.8 to 11.3 kg); this adjustment is preset at the factory. If required, the spring tension can be adjusted by tightening or loosening the elastic stop nuts located underneath the lower spring hook, or contact your local dealer if additional help is required. Refer to **Deck Counterweight Spring Installation** photo.

Assembly Instructions

Deck Leveling

1. Position mower on a smooth, level surface. Set the cutting height to the highest position - 4 in. (102 mm) - for easy access under the deck to measure blade height. Refer to **ADJUSTING CUTTING HEIGHT** in **Operating Instructions.**

   NOTE: A block of wood cut **4 in. (102 mm)** high is a convenient gauge to measure blade height above ground during the leveling process.

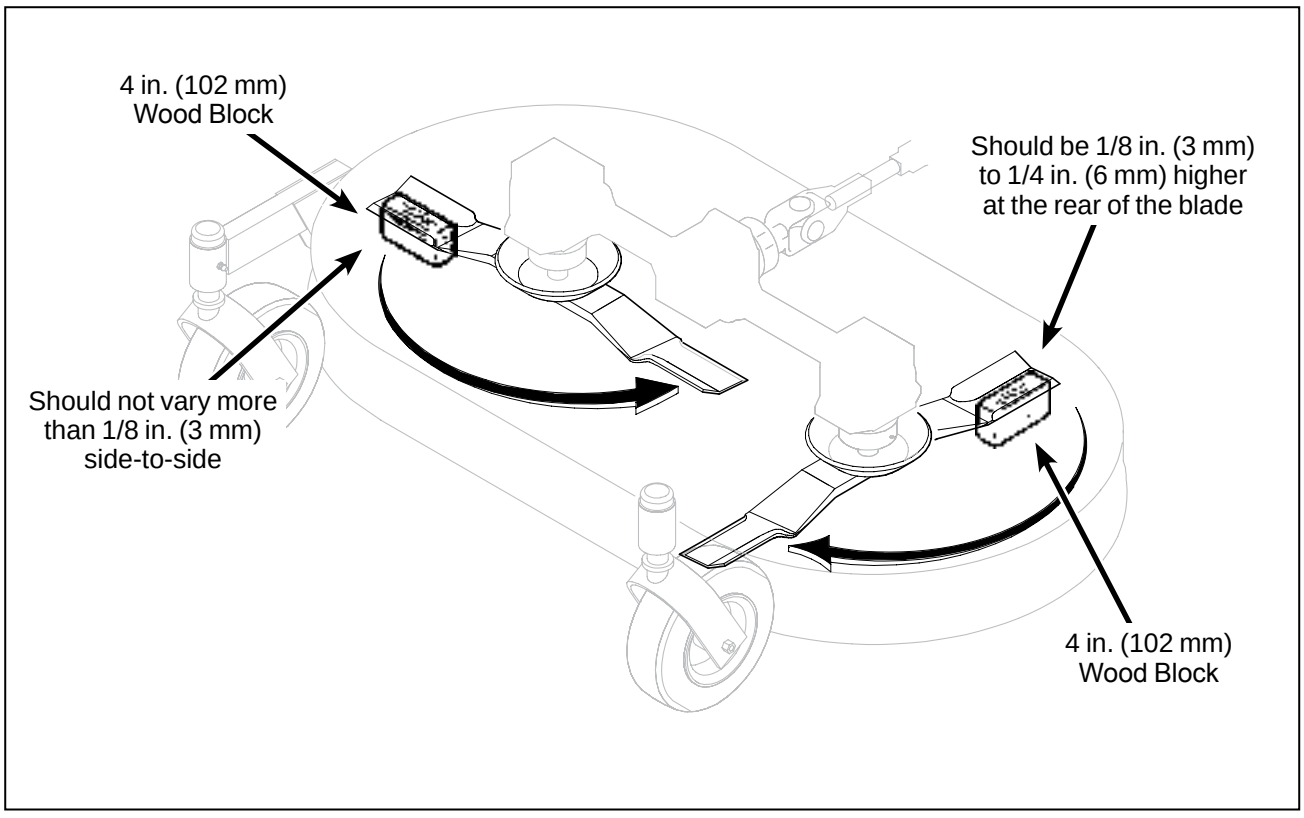
WARNING

The machine must be shut off during this procedure.

2. Check the side-to-side level. **Rotate each blade sideways** and measure the distance from blade tip to ground on each side. If measurements vary more than 1/8 in. (3 mm), add a washer shim under the deck support pins on the low side to level the deck.

3. Check the front-to-rear level. **Rotate the blades to point forward.** Measure the distance from blade tip to ground on the front and rear. The rear of the blade should be 1/8 to 1/4 in. (3 to 6 mm) higher than the front of the blade; shim the rear (or front) deck support pins equally to achieve **at least** 1/16 in. (2 mm) difference.

   NOTE: The mower deck and support frame are jig welded; within normal tolerances, very little, if any, shimming should be required to level the deck. Tire pressure will influence the levelness of the deck. Check the tire pressure as a possible cause of the deck not being level.


4 in. (102 mm)
Wood Block
Should be 1/8 in. (3 mm)
to 1/4 in. (6 mm) higher
at the rear of the blade
Should not vary more
than 1/8 in. (3 mm)
side-to-side
4 in. (102 mm)
Wood Block

Deck Leveling

Assembly Instructions

PREOPERATING CHECKLIST

Before operating the mower for the first time, and as a routine before daily operations, it is important to make sure the mower is properly prepared and ready for operation. The following is a list of items to be checked. (For a mower with frequent operation, some of these items will not need to be checked every day, but the operator should be aware of the condition of each.)

For proper fuel and lubricants refer to **Specifications.**

☐ FILL FUEL TANK

Raise the mower body and locate the fuel tank on top of the engine.

Fill the fuel tank using clean, fresh automotive grade **unleaded** gasoline (87 octane minimum, 10% ethanol maximum).

DANGER

Handle gasoline with care. Gasoline is highly flammable and its vapors are explosive. Use safe refueling procedures:

- **DO NOT fill fuel tank with the engine running.**
- **If the engine is hot, allow to cool before refueling.**
- **Use an approved fuel container.**
- **Fuel the mower outdoors.**
- **DO NOT smoke while refueling.**
- **Avoid spilling fuel; use a funnel or spout.**
- **DO NOT overfill the fuel tank; fill up to about 1 in. (25 mm) below the top of tank.**

IMPORTANT: DO NOT permit dirt or other foreign matter to enter the fuel tank. Wipe dirt from around the filler cap before removing. Use a clean fuel storage container and funnel.

IMPORTANT: DO NOT mix oil with gasoline. Always use fresh, automotive grade unleaded gasoline. **DO NOT** use gasoline containing greater than 10% ethanol. **DO NOT** use additives, such as carburetor cleaners, deicers, or moisture removing agents. **DO NOT** use gasoline blended with methyl alcohol.

☐ CHECK ENGINE CRANKCASE OIL LEVEL

Check the engine crankcase oil level before use and **after each 5 hours** of continuous operation. Refer to **LUBRICATION** for *Checking Engine Crankcase Oil Level* in **Maintenance Instructions.**

☐ CHECK AND SERVICE ENGINE AIR CLEANER SYSTEM

- Check condition, cleanliness, and security of the complete air filter system (inspect air filter **every 100 hours**). For detailed procedures, refer to **CLEANING** the **Engine Air Cleaner System** in **Maintenance Instructions.**

☐ CHECK ENGINE COOLING SYSTEM

Check that the engine cooling air intake screen is free of obstruction by grass clippings or debris and clean if required. Also, cylinder head cooling fins should be inspected and cleaned if any build-up of debris is noted (remove cylinder head shroud to clean).

Check performance of the cooling system by starting the engine, holding a hand adjacent to the cylinder head, and feeling the cooling airflow.

DANGER

Make sure to keep hands clear of exhaust pipe, muffler, and moving parts when checking airflow.

☐ INSPECT THREE (3) DRIVE BELTS

Engine, PTO, and Hydrostatic Ground Drive.

☐ CHECK HYDROSTATIC TRANSAXLE OIL LEVEL

Refer to **LUBRICATION** for **Transaxle Lubrication** in **Maintenance Instructions.**

Assembly Instructions

☐ CHECK TIRE PRESSURE

Deck Caster Wheel = 20 PSI (137 kPa)
Drive = 15 PSI (103 kPa)
Tailwheel = 20 PSI (137 kPa)

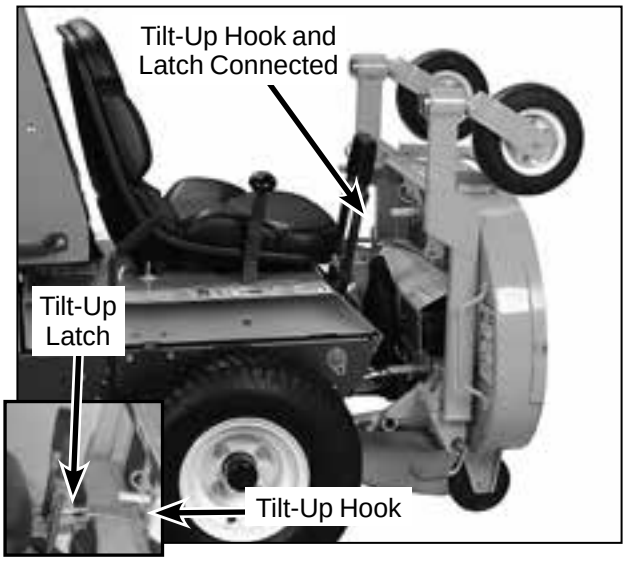
☐ CHECK AND CLEAN GRASS BUILDUP UNDERNEATH MOWER DECK (and inside GHS blower, if equipped)

Refer to **CLEANING** the **GHS Blower** in **Maintenance Instructions** for blower cleaning information.

⚠ *DANGER*

Never operate cutter blades with deck in raised position because it is hazardous.

The tilt-up deck can be secured in the raised position by unlocking the deck lock levers on each side of the carrier frame and inserting the deck hook into the tilt-up latch on the tractor body. Before operating the tractor, make sure to re-engage the deck lock levers after lowering the deck to the normal operating position.



Deck Secured in TILT-UP Position

⚠ *CAUTION*

Do not operate machine with deck tilt-up pivot joint unlocked.

⚠ *DANGER*

Do not operate the mower with deck in tilt-up position. Do not move the tractor with the deck in the tilt-up position.

☐ CHECK MOWER BLADE CONDITION, SHARPNESS, BALANCE AND SECURITY OF MOUNTING

The blade mounting nuts on gear driven decks should be torqued to 60 lb·ft (81 N·m), and the blade mounting bolts on belt driven decks torqued to 70 lb·ft (95 N·m). If blade sharpening is required, refer to **CHECKING/SERVICING** for **Sharpen Mower Blades** in **Maintenance Instructions.**

☐ ADJUST MOWER CUTTING HEIGHT, IF REQUIRED

Position the hitch pins in the four deck support pins. Refer to the “Cutting Height Adjustment” decal on the deck gearbox cover.

☐ CHECK DRIVE WHEEL BOLT TORQUE

The lug bolts mounting the drive tires should be tightened to 75 to 85 lb·ft (102 to 115 N·m).

☐ CHECK FUNCTION OF SAFETY INTERLOCK SWITCHES

Refer to **Operating Instructions** to check for proper operation of safety switches, both during engine starting and with the operator leaving the seat with tractor moving forward or with the mower blades engaged.

☐ PERFORM ANY ADDITIONAL PROCEDURES called for on the **MAINTENANCE SCHEDULE CHART** in **Maintenance Instructions.**

Operating Instructions

CONTROL IDENTIFICATION, LOCATION, AND FUNCTION

> ***CAUTION***
>
> **Before operating the mower, become familiar with the location and function of all operator controls. Knowing the location, function, and operation of these controls is important for safe and efficient operation of the mower.**

Ignition Switch

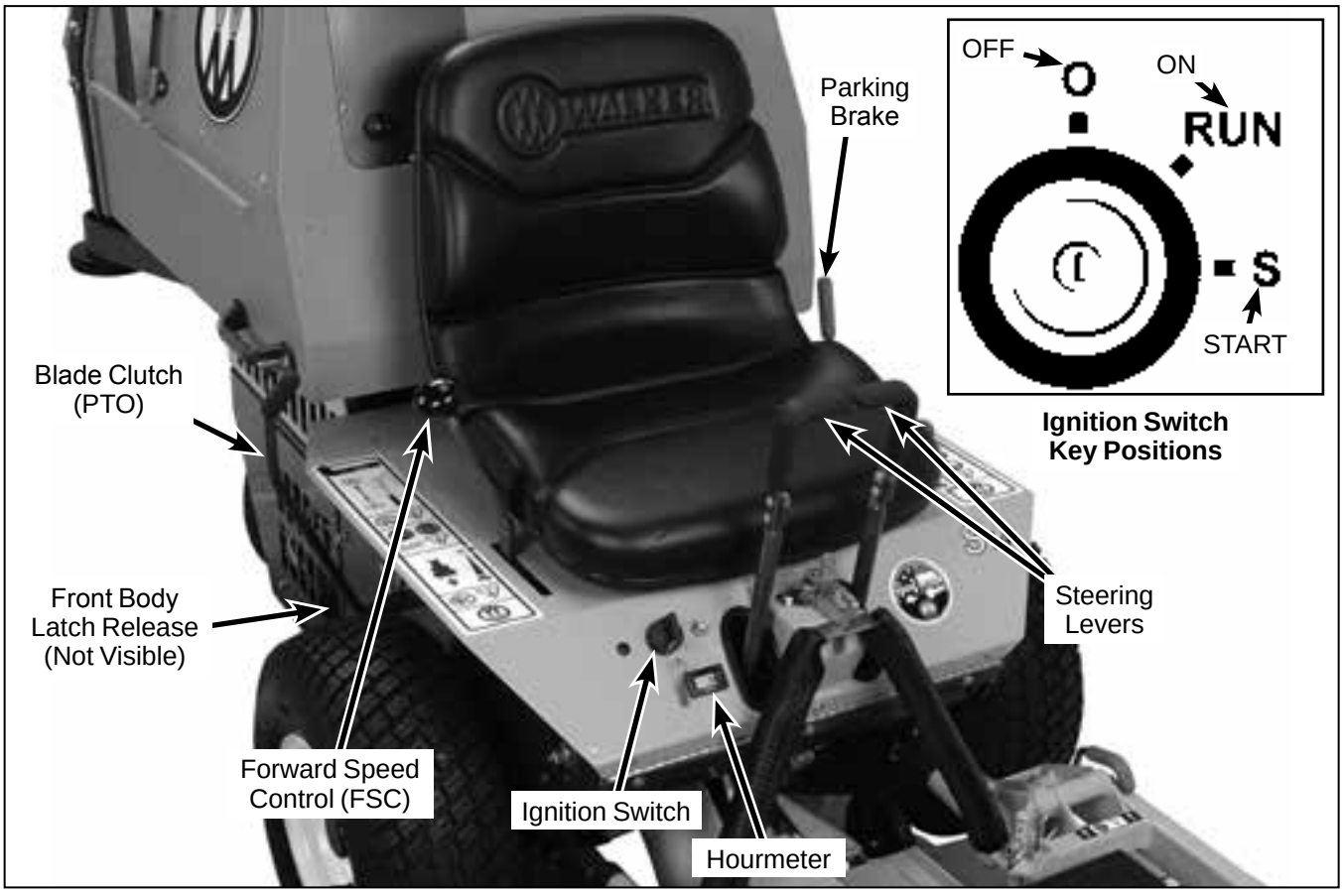
The ignition switch is located on the right front of the body and is used to start and stop the engine. The switch has three positions: "O" is the **OFF** position, **ON (RUN)** is the position the key returns to after starting, and "S" is the **START** position. When starting the engine, turn the key clockwise to the "S" position.

Do not hold the key in the "S" position longer than 10 seconds. If the engine does not start, return the key to the "O" position for at least 60 seconds before making a restart attempt. Prolonged cranking can damage the starter motor and shorten battery life. Release the key when the engine starts, and it will return to the **ON (RUN)** position. To stop the engine, rotate the key counterclockwise to the "O" position.

Engine Choke

The choke control lever (black knob) is located on the left side of the seat. To start a cold engine, move the choke control forward to the **ON** position. After engine starts, move the choke control toward the **OFF** position, keeping enough choke to allow the engine to run smoothly as it warms up. As soon as possible, move the choke to the **OFF** position. A warm engine requires little or no choke for starting.

IMPORTANT: Make sure the choke is in the **OFF** position during normal engine operation; running with the choke in the **ON** position **CAN** damage the engine.



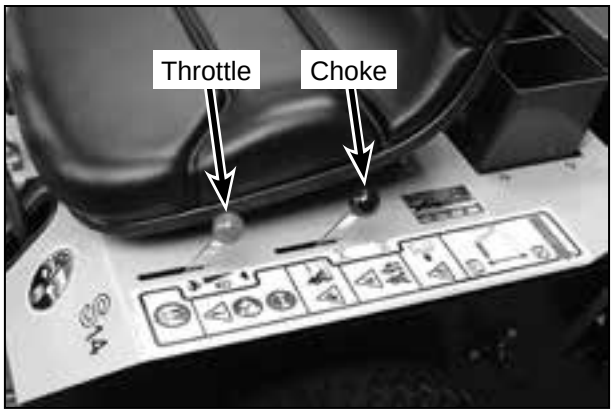
Ignition Switch Key Positions

Operating Controls

Operating Instructions

Engine Throttle

The throttle control lever (red knob) is located on the left side of the seat and is used to control engine speed. Moving the lever **forward** toward the **FAST** position **increases** engine speed; moving it **backward** toward the **IDLE** position **decreases** engine speed.



Choke and Throttle Location

Forward Speed Control (FSC)

Forward Speed Control (FSC) has two functions: One is to set forward travel speed, and the other is to establish the **NEUTRAL-PARK** position. When the FSC lever is moved into the **FORWARD** position, a friction lock holds any forward speed setting from 0 to 6.5 mph (0 to 10.5 km/h). The ground speed is proportional to the lever position; the further the lever is advanced forward, the faster the tractor moves. It is not necessary to hold the FSC in position since the friction lock maintains the selected lever position. Pulling back on the steering levers overrides the FSC setting and slows or stops forward travel. Releasing the steering levers allows the tractor to resume forward travel at the speed set by the FSC lever. To stop and park the machine, the FSC lever is moved backward to the **NEUTRAL-PARK** position.

Front Body Latch Release

The front portion of the tractor body hinges forward for maintenance access and is latched down in the **OPERATING** position. To raise the body, move the latch release backward.

Steering Levers

Each drive wheel is controlled by its own independent steering lever, for both steering function and **FORWARD/REVERSE** motion. The FSC lever sets the maximum forward speed, and also sets the forward position of the steering levers. The steering levers operate **only with a backward pulling** movement of the lever, which causes the drive wheel for that lever to first slow down, stop, and then reverse with a full backward lever stroke. The levers are released to the **FORWARD** position for “straight-ahead” ground travel.

NOTE: Pushing forward on the steering levers will not cause **any** change in tractor motion - there will be no steering lever reaction and there will be no machine damage.

Blade Clutch (PTO)

The blade clutch lever is located on the right side of the seat behind the right fender and is used to engage and disengage the mower blades. The blade clutch has two positions. Pushing the lever **DOWN engages** the PTO that drives the mower blades. Pulling the lever **UP disengages** the PTO and engages the blade brake.

NOTE: On GHS equipped models, the Powerfil® motor and Grass-Pak® full signal switch are activated by engaging the blade clutch. Refer to **Using the GHS Catcher** in this section for a complete description of GHS operation.

Operating Instructions

Parking Brake

The parking brake functions by locking a detent arm to a cog inside the transaxle. Moving the lever **FORWARD engages** the parking brake; moving the lever **BACKWARD releases** the brake.

IMPORTANT: Stop the tractor completely before engaging the parking brake. The parking brake uses a positive mechanical lock similar to the **PARK** position on an automotive automatic transmission. If the tractor is moving when the brake is engaged, it will result in sudden stoppage and possible internal damage to the transaxle.

NOTE: If pressure on the parking brake (e.g., parked on a hill) makes it impossible to release the parking brake with the parking brake lever, move the mower gently forward or backward to allow the brake detent to release.

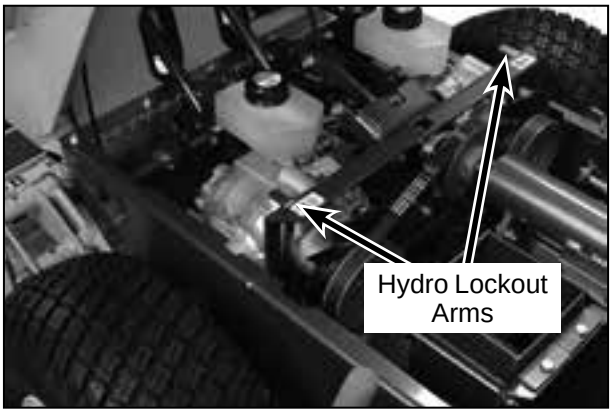
Parking Brake Engaged

Parking Brake Disengaged

Transaxle Lockout Arms

The transaxle lockout arms disengage the transaxles. By **lifting** the arms up and locking them into place with the shoulder on the arm in the chassis notch, the transaxles are released to permit freewheeling. By releasing the arms and **recessing** them back toward the chassis, the transaxles are engaged for normal operation. The transaxle arms in the **LOCKOUT** position are used to enable moving the machine without the engine running (e.g., for service). Refer to **TRANSAXLE LOCKOUTS** in this section for operating instructions.

NOTE: The transaxle lockout arms ends should be completely retracted against the chassis, otherwise operation of the transaxle may be erratic.



Hydro Lockout Arm Location

Operating Instructions

Hourmeter

The hourmeter, which is located on the right front of the body, displays **operating time** accumulated while the PTO (blade drive) clutch is **engaged.**

The hourmeter provides maintenance reminders after certain hours of operation. The hourmeter screen will start flashing the reminder one hour prior to the recommended interval and will continue until one hour after the recommended interval (two hours). The hourmeter **does not have a manual reset function.**

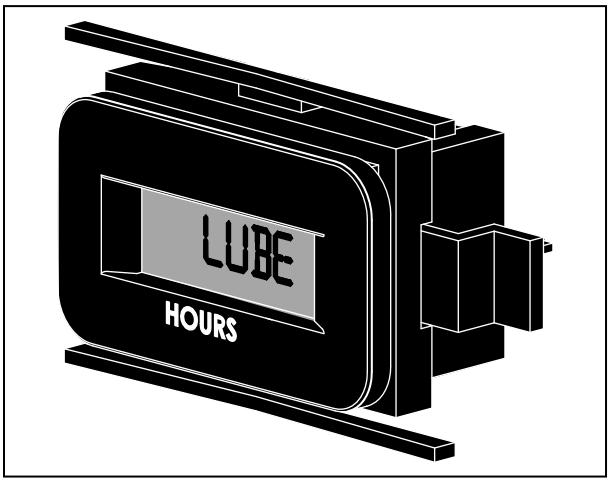
Procedure	Interval*	Reminder
Oil Change (Break-In)**	4-6 Hours	CHG OIL
Lubricate and Check Levels	24-26 Hours	LUBE
Oil Change	49-51 Hours***	CHG OIL

* These intervals reflect the actual time that the reminder will flash (one hour prior to and one hour after the recommended interval).

** This reminder is only used one time.

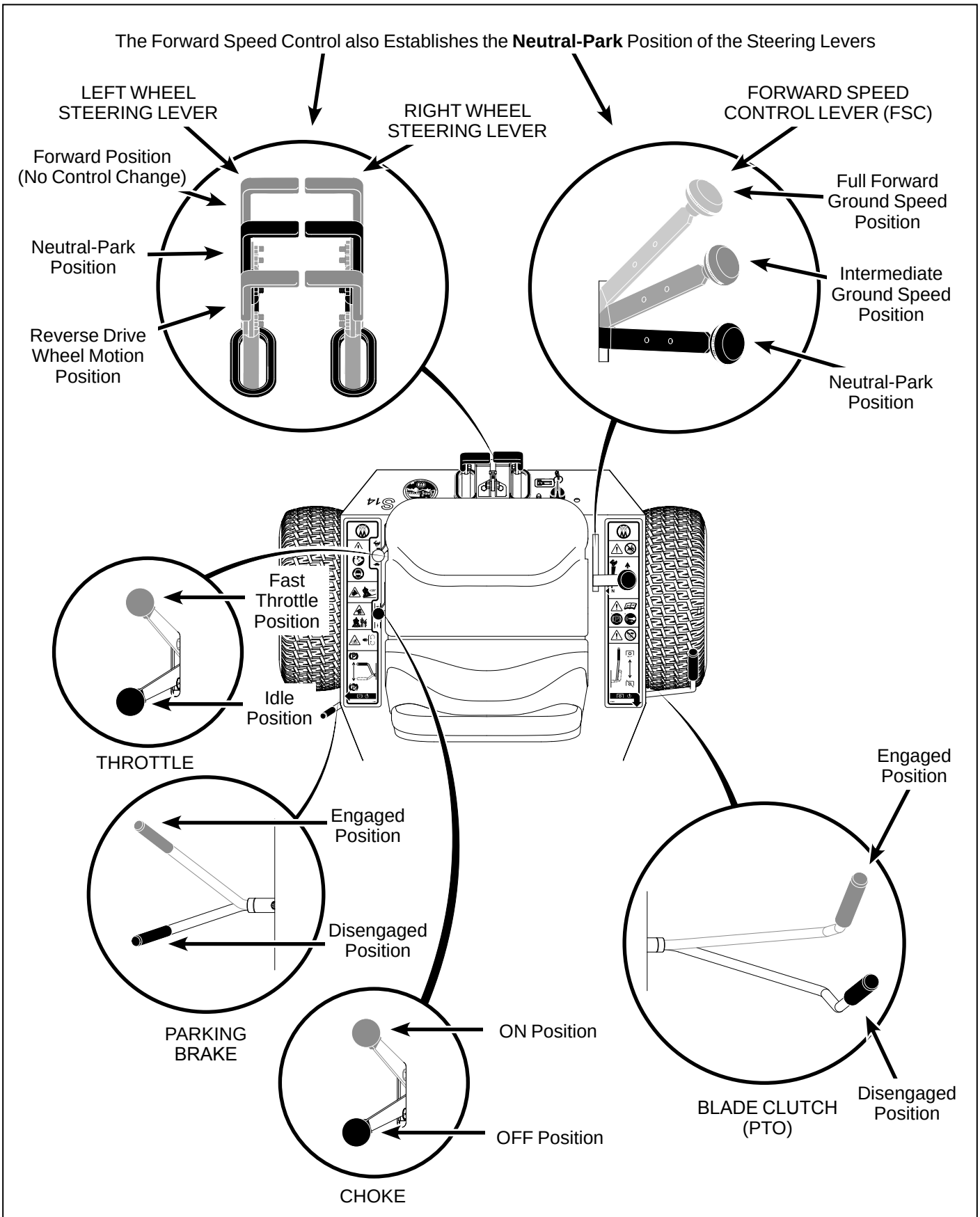
*** In normal operating conditions, oil changes in 100-hour intervals are acceptable. Walker and the engine manufacturers recommend engine oil changes every 50 hours in extremely dirty or dusty conditions or for units with less than 100 hours annual use.

NOTE: The blinking hour glass on the display means that the meter is operating properly.



Hourmeter

Operating Instructions



Operating Controls (Top View from Drivers Point of View)

Operating Instructions

STARTING THE ENGINE

> ***CAUTION***
>
> **Before operating the mower, read and understand all Safety Instructions and Operating Instructions.**

> ***WARNING***
>
> **NEVER run the engine in an enclosed or poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.**

1. Before attempting to start the engine, make sure the operator is in the seat, the Forward Speed Control is in **NEUTRAL-PARK** position, and the blade clutch and parking brake are **DISENGAGED.**

   NOTE: Release parking brake to prevent extra load on the starter if the transmission neutral is slightly out of adjustment.

> ***CAUTION***
>
> **A safety interlock switch system PREVENTS CRANKING the engine with either the Forward Speed Control out of neutral, or the blade clutch (PTO) engaged. If the engine cranks otherwise, the safety system is not working and should be repaired or adjusted before operating the mower. DO NOT disconnect safety switches; they are for the operator's protection.**

2. Move the choke lever to the **ON** position and move the throttle 1/4 to 1/2 open (toward **FAST**). Turn the ignition switch to the **START** position to start the engine. Release the key to **ON (RUN)** position as soon as the engine starts.

   NOTE: The choke may not be required if the engine is warm.

   IMPORTANT: DO NOT crank the engine continuously for more than 10 seconds at a time. If the engine does not start, turn the key to the **OFF** position and allow a 60 second cool-down period between starting attempts. Failure to follow these guidelines can damage the starter motor and shorten battery life. Consult your Walker dealer or authorized engine dealer for additional help.

3. After the engine starts, gradually move the choke to the **OFF** position, keeping enough choke on to allow the engine to run smoothly as it warms up. As soon as possible, move the choke to the **OFF** position.

   IMPORTANT: Make sure the choke is in the **OFF** position during normal engine operation; running with the choke in the **ON** position **CAN** damage the engine.

ADJUSTING GROUND SPEED AND STEERING

> ***CAUTION***
>
> **Learn to START, STOP, and MANEUVER the mower in a large, open area.**
>
> **If the operator has not operated a machine with LEVER STEERING OR DUAL TRANSAXLES, steering and ground operation should be learned and practiced until the operator is completely comfortable handling the machine BEFORE ATTEMPTING TO MOW.**

> ***DANGER***
>
> **Keep feet on footrests at all times when the machine is moving. Never operate the tractor without a deck or implement installed.**

Operating Instructions

Beginning Recommendations are:

- **Learn operation of the mower in an open area away from buildings, fences, and obstructions. Learn operation on flat ground BEFORE operating on slopes.**
- **Start maneuvering the mower with SLOW engine speed and SLOW Forward Speed Control setting until familiar with all operating characteristics.**
- **Remember it is not necessary to hold the steering levers forward (a unique Walker feature); always PULL on the levers for steering or for reverse motion of the mower.**
- **Learn to operate the mower with your left hand on the steering levers and right hand on Forward Speed Control. The use of two hands on the steering levers tends to cause overcontrol.**
- **Learn to operate the steering levers with smooth action. Jerky movements are hard on the transmission and lawn. For sharp turns, do not allow the inside wheel to stop and twist on the grass. Pull the steering lever controlling the inside wheel into reverse for a smooth "rolling" turn (one wheel rolling forward while the other rolls backward).**
- **Practice maneuvering the mower until you can make it go exactly where you are aiming.**
- **Remember, for an emergency stop, or in case of loss of control, machine movement can always be stopped quickly by pulling the Forward Speed Control into the NEUTRAL-PARK position.**

1. Move the FSC out of **NEUTRAL-PARK** position to the desired forward speed. **DO NOT** hold forward on steering levers. It is not necessary to hold the FSC lever in position since a friction lock maintains the selected lever position (and forward travel speed).

WARNING

If either of the transmission drive belts break during slope operation, the machine will freewheel down the slope. To maintain control, immediately (1) Release the steering levers and simultaneously (2) Move the FSC to the NEUTRAL-PARK position. When the machine is stopped or moving slowly, engage the parking brake.

NOTE: This is exactly the same procedure used to normally stop and park the machine.

CAUTION

An operator presence switch (seat switch) will cause the engine to stop if the FSC is out of the NEUTRAL-PARK position and the operator is not in the seat. The function of this switch should be checked by the operator raising off the seat with the tractor moving forward; the engine should stop. If the safety system is not working, it should be repaired or replaced before operating the mower. DO NOT disconnect the safety switches; they are for the operator's protection.

NOTE: If the FSC lever will not stay in the selected position, the friction lock needs to be adjusted. Refer to **ADJUSTMENTS** for **Step 7 -** *Forward Speed Control Friction Adjustment* in the **Maintenance Instructions.**

2. Steer by pulling the lever on the side of desired direction of turn, e.g., pull the **LH** lever to **turn left.** To minimize the possibility of overcontrol, use only one hand on both steering levers.

Operating Instructions

Correct Operator Hand Position on the Controls

3. Reverse direction of the mower by pulling both levers backward.

   NOTE: Smooth action on the steering levers will produce smooth mower operation. Remember to keep the engine and ground speed slow until learning the control response.

WARNING

When moving forward, DO NOT suddenly put the tractor in reverse by rapidly pulling on the steering levers, especially when going downhill, as this can lift the tractor tail wheel off the ground and set up a bucking motion due to operator overcontrol. If bucking does occur, immediately stop the bucking action by pulling the Forward Speed Control (FSC) lever into the NEUTRAL-PARK position.

4. The FSC may be adjusted forward for faster ground speed and backward for slower ground speed. When mowing, ground speed should be adjusted to match the load on the cutter blades, i.e., as the engine pulls down in heavy cutting, pull back on the FSC lever to reduce ground speed. Adjusting ground speed helps maintain a balance between engine power and blade speed for high-quality cutting action.

5. Stop ground travel by pulling both steering levers backward to the **NEUTRAL-PARK** position (tractor not moving) and then moving the FSC lever to the **NEUTRAL-PARK** position.

   NOTE: If the tractor creeps forward or backward with the FSC lever in the **NEUTRAL-PARK** position, the transmission control needs to be adjusted. Refer to **ADJUSTMENTS** for **Step 3 -** *Neutral Position Adjustment* in the **Maintenance Instructions.**

ENGAGING THE BLADE DRIVE

1. Set the engine throttle at about 1/2 speed. **DO NOT attempt to engage the blade clutch at high engine speeds.** This will drastically shorten drive belt life. Use only moderate engine speed when engaging the blade clutch.

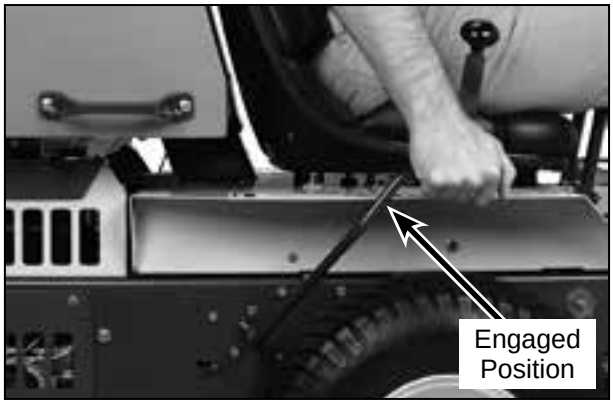
2. Push the blade clutch lever **SLOWLY** forward to engage the mower blades.

CAUTION

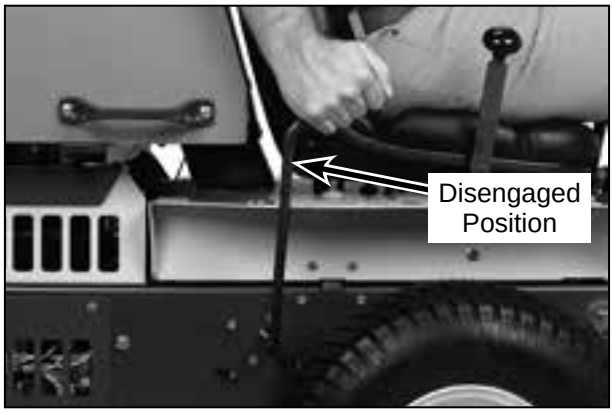
An operator presence switch (seat switch) will cause the engine to stop if the blade clutch is engaged and the operator is not in the seat. The function of this switch should be checked by the operator raising off the seat and engaging the blade clutch; the engine should stop. If the switch is not working, it should be repaired or replaced before operating the mower. DO NOT disconnect the safety switches; they are for the operator's protection.

IMPORTANT: DO NOT engage the blade clutch when transporting the mower across drives, sidewalks, loose materials, etc. **DO NOT engage the blade clutch with the PTO shaft disconnected** (the mower deck removed from tractor).

Operating Instructions



Blade Clutch Engaged



Blade Clutch Disengaged

⚠ *CAUTION*

If the cutting blades strike a stationary object while mowing, stop the mower immediately, disconnect the spark plug wire, lift the deck, and inspect the deck and blades thoroughly for damage. Make sure that the blade timing has not been disturbed (the blades should be at 90 degrees to each other). Refer to REPLACING/REPAIRING the Blade Overload Shear Bolts in Maintenance Instructions if blades are out of time. Also, make sure the blade retaining nuts are torqued to 60 lb·ft (81 N·m).

STOPPING THE MACHINE

1. Pull the steering levers to the **NEUTRAL-PARK** position and then move the FSC lever backward to the **NEUTRAL-PARK** position.

2. Slow the engine down by moving the throttle to the **IDLE** position.

3. Disengage the blade clutch.

   NOTE: Reducing engine speed prior to disengaging the blade clutch will reduce wear on the brake band and brake drum, increasing the life of these components.

⚠ *WARNING*

A brake stops the cutter blades (and blower on GHS equipped models) from freewheeling within five (5) seconds after disengaging the clutch. If the brake system malfunctions and the blades do not stop within five (5) seconds, the brake should be adjusted or repaired before operating the mower. Contact your Walker dealer.

4. Turn the ignition switch **OFF.**

⚠ *WARNING*

Remove the key from the ignition switch when leaving the mower unattended. This will prevent children and inexperienced operators from starting the engine.

5. Engage the parking brake by moving the lever forward.

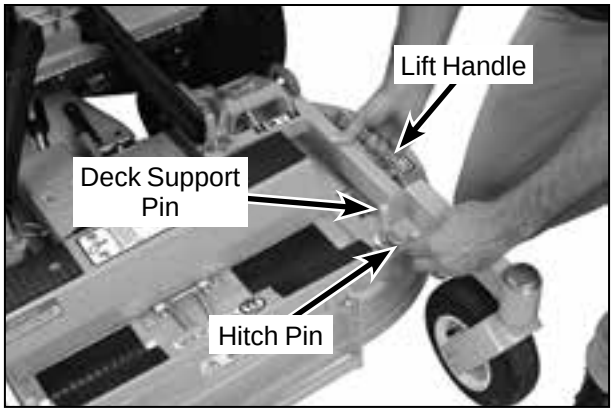
   IMPORTANT: When the machine is in **NEUTRAL** it may slowly creep, especially if parked on a slope. Always engage the parking brake to prevent any machine movement.

Operating Instructions

ADJUSTING CUTTING HEIGHT

> ***WARNING***
>
> **The engine must be stopped before adjusting cutting height. Disengage the blade clutch (PTO), stop the engine, and remove the ignition key. Wait for all movement to stop before getting off the seat.**

Cutting height is adjusted by positioning the four (4) retainer hitch pins in a series of seven vertical holes on the deck support pins. Lift handles have been provided on each end of the deck to assist in raising the deck while positioning the hitch pins. Cutting heights range from 1 in. (25 mm) [top holes] to 4 in. (102 mm) [bottom holes] in 1/2 in. (13 mm) increments.



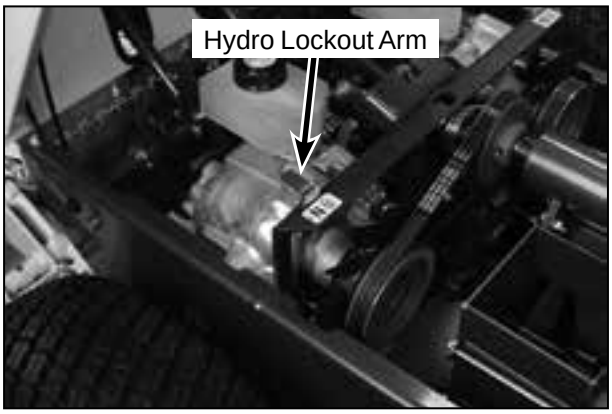
Cutting Height Adjustment

TRANSAXLE LOCKOUTS

IMPORTANT: DO NOT TOW this mower faster than 2 mph (3.2 km/h) with the transmission lockout engaged. Towing can produce excessive internal pressure and damage the transaxle(s).

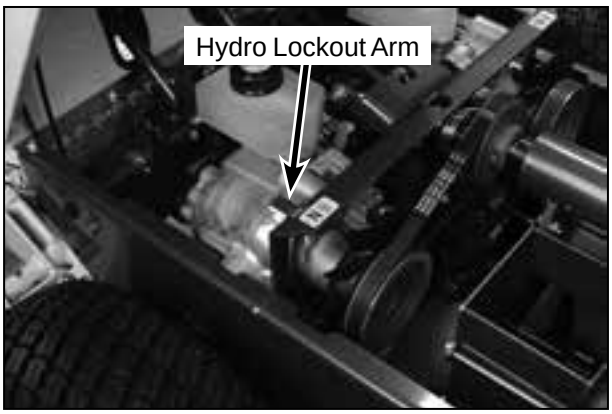
To move the mower with the engine **NOT** running (dead battery, maintenance, etc.), the transaxles need to be unlocked (released).

1. Raise the body.
2. Pull up on each transaxle lockout arm and move toward the center of the machine to engage the step that holds the arm in the UP (unlocked) position.
3. The mower will "freewheel" with the arms in the **LOCKOUT** position. The levers must be in the highest position to completely unlock the transmissions.



Hydro Lockout Arm - Freewheel Position

4. After moving the mower, release the arms, placing them in the normal **OPERATING** position. The transmission arm ends should be completely retracted against the chassis, otherwise operation of the transmission maybe erratic.



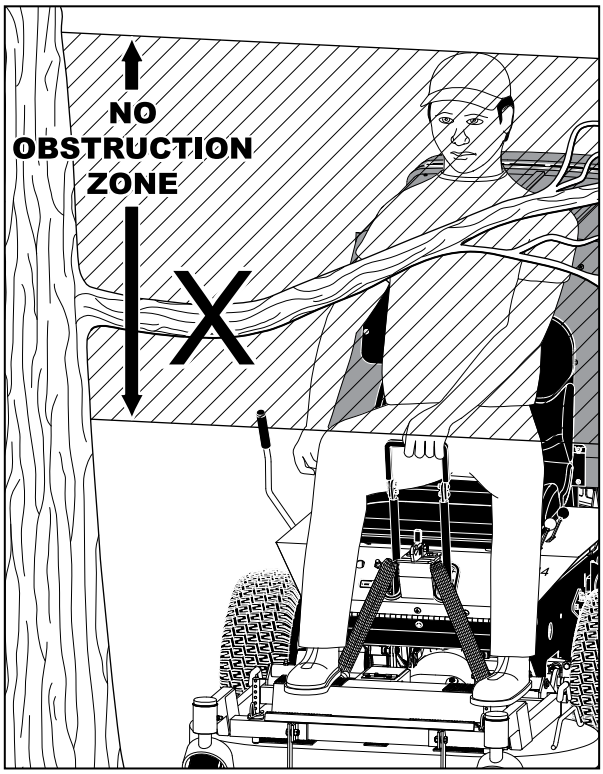
Hydro Lockout Arm - Normal Operating Position

Operating Instructions

RECOMMENDATIONS FOR MOWING

⚠ *DANGER*

Do not mow around overhanging tree branches or bushes at the same height as the operator's torso and head where inadvertent contact may cause injury.



Avoid Low Hanging Branches

IMPORTANT: Operate the engine at **full throttle** when mowing, to allow the engine to produce full horsepower and to increase efficiency of the engine cooling system.

- Keep the mower deck and discharge chute clean.

- Mow with **sharp blades.** A dull blade tears the grass (resulting in poor lawn appearance) and uses extra power (slowing the mowing speed).

- It is preferable to cut grass when it is **dry** and **not too tall.** Mow frequently and do not cut grass too short. (For best appearance, cut off 1/3 or less of existing grass height.)

- When mowing, operate the engine at **full throttle** for the best cutting action and performance of the grass handling system (GHS). Mowing with a lower engine RPM causes the mowing blade to not cut clean and tear the grass. The engine is **designed to be operated at full speed.**

- When mowing in adverse conditions (tall and/or wet grass), mow the grass twice. Raise the mower to the highest setting - 4 in. (102 mm) - for the first pass and then make a second pass cutting to the desired height.

- Use a **slow** setting on the FSC for **trimming** operations.

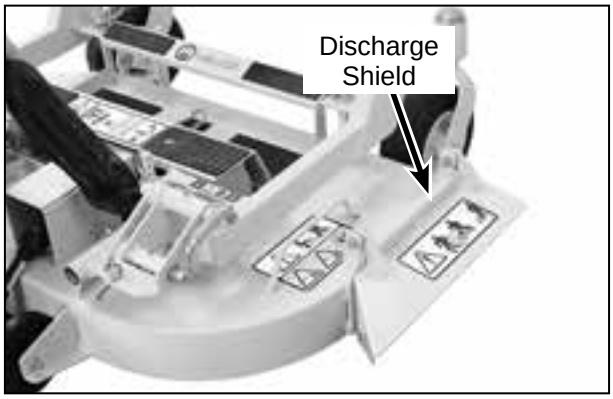
- Make sure the mower is **leveled properly** for a smooth cut. Refer to *Deck Leveling* in **Assembly Instructions.**

- Use an alternating **stripe mowing pattern** for **best appearance** and vary the direction of the stripe each time the grass is mowed to avoid wear patterns in the grass.

- Avoid damage to the grass by slipping and skidding of the drive tires. Use **smooth control movements** of the steering levers since the transaxles are "power boosted controls" and jerking the levers can easily slip the tires. For sharp turns, do not allow the inside wheel to stop and twist on grass; pull inside steering lever into reverse for a smooth "rolling" turn (one wheel rolling forward while the other rolls backward).

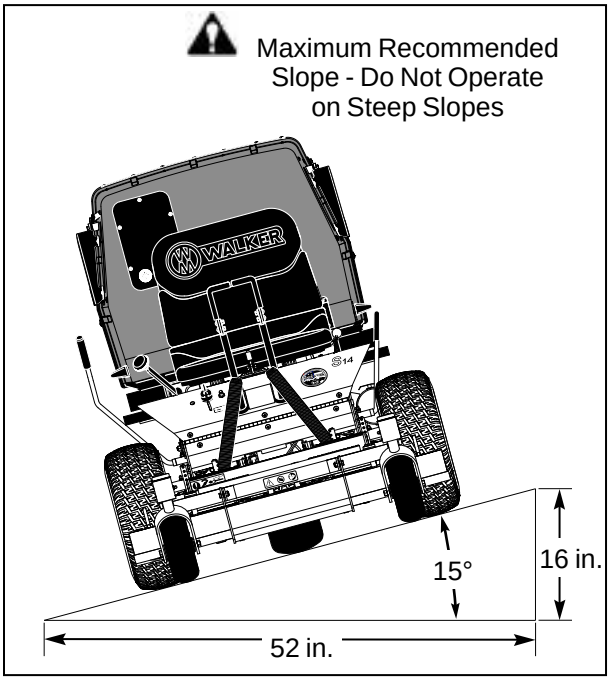
Operating Instructions

• When using a side discharge mower deck, the side discharge deflector shield **must not be removed** and must be kept in the lowest possible position to deflect grass clippings and thrown objects downward. Orient the side discharge away from sidewalks or streets to minimize cleanup of clippings. When mowing close to obstacles, orient the side discharge away from obstacles to reduce the chance of damage to property by thrown objects.



Side Discharge Deflector Shield in Lowest Position

• When operating on a slope, **reduce speed and use caution** to start, stop, and maneuver. Avoid sharp turns or sudden changes in direction. The **maximum recommended slope operating angle is 15 degrees or 26% grade.**



Maximum Recommended Slope

DANGER

Do not mow or dump grass within 5 feet (1.5 meters) of an embankment or retaining wall with drop off.

No Driving Zone

RECOMMENDATIONS FOR TILT-UP DECK OPERATION/TRANSPORT

To avoid potential deck and/or tractor damage while using the tilt-up deck, the following recommendations are offered:

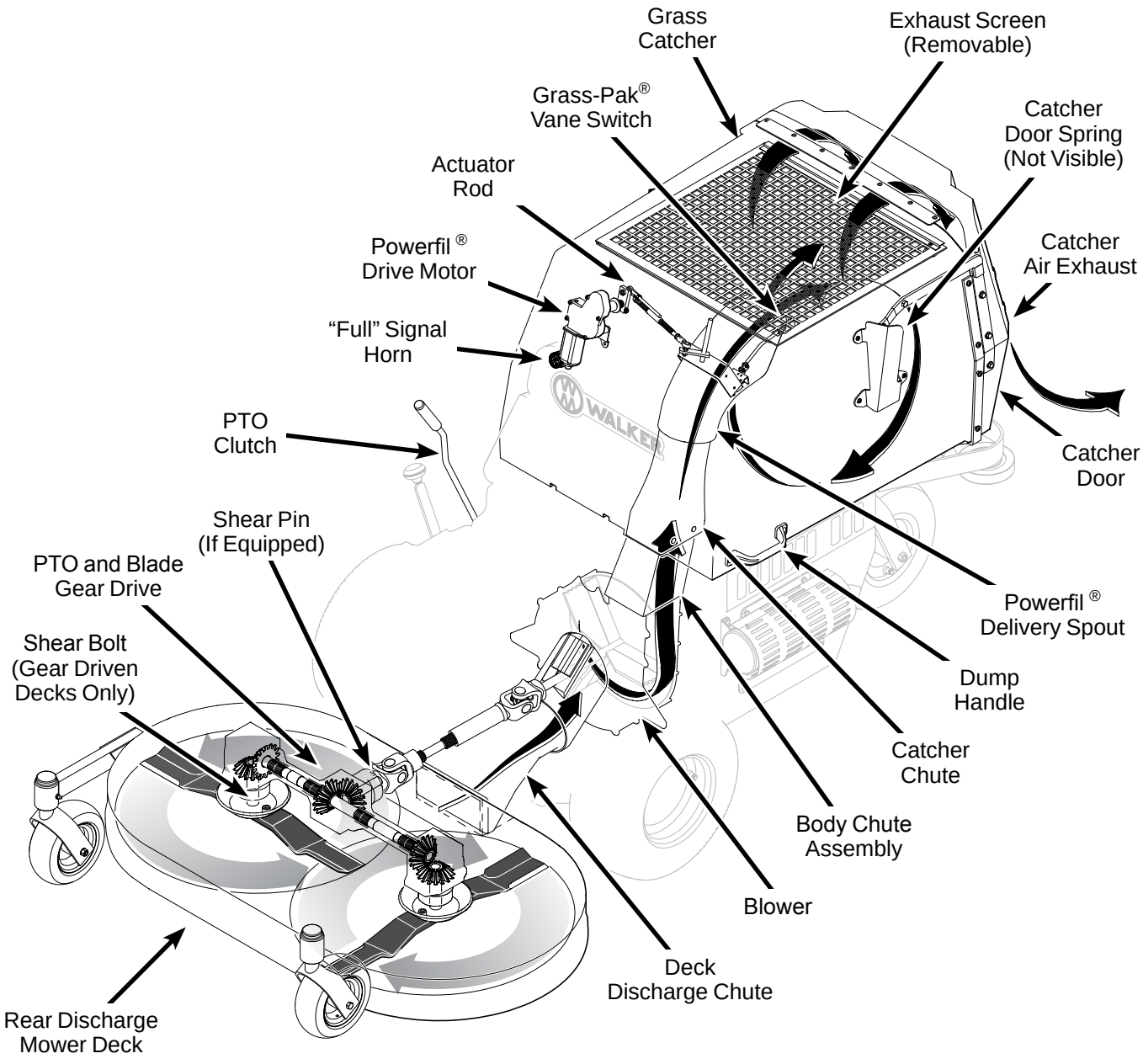
- **Do not move the tractor** with the deck in the tilt-up position since both the roller wheels (on the back of the deck) and the GHS discharge chute may be damaged by moving the tractor. The tilt-up configuration should only be used when the tractor is parked.

- The tractor **body should never be tilted forward** with the deck in the tilt-up position. This can cause the deck to unhook from the tractor and fall with considerable force, potentially causing deck or tractor damage and/or bodily injury.

- When transporting a tractor with the deck in the tilt-up position (on a truck or trailer), the **deck should be secured** to the vehicle with a strap or rope (stop vertical movement). This will prevent the deck from bouncing on the rear roller wheels (causing breakage). This will also prevent the deck from unhooking from the tractor and falling, potentially causing deck or tractor damage. Damage to other items parked in front of the deck may also occur.

Operating Instructions

GRASS HANDLING SYSTEM (GHS)
GHS Model Only



GHS Flow and Components

Operating Instructions

General Information

The Grass Handling System (GHS) consists of a rear discharge mower deck connected to a 12.5 in. (32 cm) blower and a rear mounted grass catcher with 7.0 bushel (246 liters) capacity. The GHS blower operates any time the mower blade clutch is engaged and moves grass through the rear discharge deck chute into the grass catcher. Blower airflow is exhausted out the back of the grass catcher, through a filtering screen. When the grass catcher is full and needs to be emptied, a **"full" signal horn alerts the operator.** When the "full" signal horn sounds, it is important to stop mowing to prevent overfilling and clogging of the blower system.

IMPORTANT: Normally, the GHS blower operates with no maintenance or cleaning required. However, under certain operating conditions, the inside of the blower housing may accumulate a deposit of dirt, causing wear and binding of the blower wheel. Normally, dirt buildup occurs when mowing **a combination of dirty and damp grass,** especially in the springtime. When operating in these conditions, **check the blower wheel frequently** for binding and clean the blower housing as required. Refer to **CLEANING** the **GHS Blower** in **Maintenance Instructions.**

NOTE: In Autumn, when using the GHS mower to vacuum leaves, it is recommended to raise the **front** of the mower deck 2 to 3 notches [1 to 1-1/2 in. (25 to 38 mm)] **higher than the rear.** This will avoid "bulldozing" leaves, particularly when the leaves are piled in a thick layer. To make this adjustment, the hitch pins in the **two (2) front** deck support pins are repositioned 2 to 3 notches higher while leaving the rear pins in their original position.

DANGER

NEVER operate the GHS catcher with the back door open. Objects may be thrown out the back of the catcher with sufficient force to cause serious injury to bystanders or property damage.

DANGER

ROTATING BLOWER BLADES

NEVER operate the GHS blower with the blower discharge chute uncovered (grass catcher in the dump position) since dangerous projectiles may be thrown. NEVER put hands into the blower discharge chute for any reason. Use a stick or similar instrument to remove any material if clogging has occurred.

CAUTION

NEVER leave grass clippings in the grass catcher after mowing. Damp clippings generate heat as they decompose. This MAY cause spontaneous combustion.

Operating Instructions

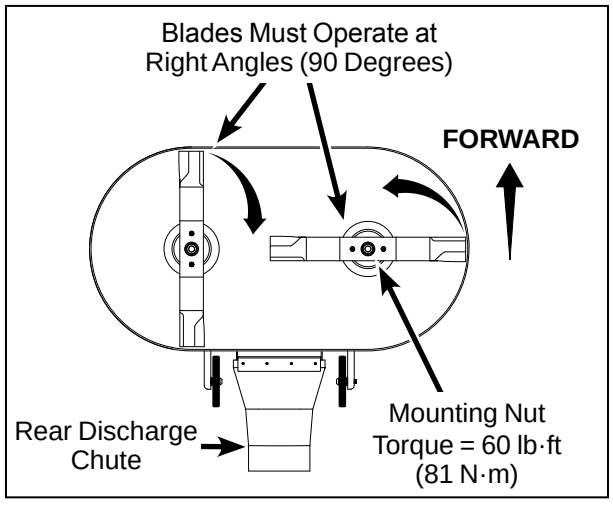
Clogging Checklist

In case of clogging, there will be a **distinct change in the sound** of the blower, i.e., the blower sound will stop. Also, the mower deck will begin to leave a trail of grass clippings. When this occurs, stop the engine, disconnect the spark plug wire, and make sure **all movement has stopped before attempting to unclog.**

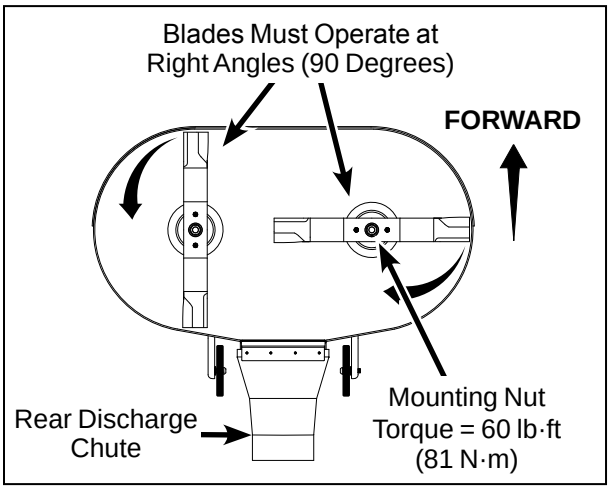
> ***DANGER***
>
> **NEVER place hands under the mower deck or in the GHS blower discharge chute. Use a stick or similar tool to remove any clogged material.**

Normally, any clogging will first develop at the back of the mower deck in the discharge opening into the blower chute. Clogging at this point **does not indicate a particular problem in this part of the system, but is a symptom of something restricting the flow of material** throughout the entire system. The following list of items should be checked if a pattern of clogging begins to develop. All of these items are capable of causing clogging at the back of the deck.

- Check to see if the mower blades are installed **for the correct rotation.** The blade cutting edges should move towards each other at the front of the deck on standard rotation decks (e.g., DC42), and towards each other at the back of the deck on reverse rotation decks (e.g., DC36R).



Blade Rotation for Standard Rotation GHS Mower Deck (Bottom View)



Blade Rotation for Reverse Rotation GHS Mower Deck (Bottom View)

- Check the amount of **flat section** remaining at blade tip. This is the area that is ground away (removed) when the blades are sharpened. If too much of the flat section is removed, the "air lift" performance or "shovel" effect of the blade deteriorates to the point that discharge of grass clippings into the blower chute is marginal. Replace cutter blades if less than 3/4 in. (19 mm) flat section remains at the blade tip.

- Check that the interior of the deck housing and baffling is reasonably **clean and free of grass and dirt buildup.** While some degree of material buildup can be tolerated, a point is finally reached where the flow of air and grass clippings is restricted.

NOTE: One condition that quickly causes a buildup of material in the deck housing is mowing grass and/or weeds which are "juicy." The material collects under the deck with sticky, green juice. Clover and weeds are especially a problem. The mower deck will need to be cleaned frequently when operating in these conditions.

- Check the deck cutting height setting. When working in thick, tall grass, **lower deck settings [1 to 2 in. (25 to 51 mm) cutting heights] tend to restrict airflow** from moving into and under the deck. Raising the deck cutting height will significantly increase airflow and reduce clogging when working in thick, tall grass.

- Check the interior of the chute connecting the mower deck to the blower for **smoothness and freedom from obstruction.**

- Check the blower wheel for **bent blades and excessive clearance** between the blade tip and the blower housing. A clearance greater than 1/8 in. (3 mm) will cause a significant loss of blower performance.

- Check the blower discharge chute into the grass catcher for **smoothness and freedom from obstruction.**

- Check the elbow inside the grass catcher for a **buildup of material in the radius** of the elbow. In certain conditions (damp/dirty grass) a considerable "clump" of material can accumulate at this point, greatly restricting material and airflow.

- Check that the **openings in the removable air exhaust screen** in the grass catcher are not plugged. If the screen is clogged, refer to **Cleaning the GHS Exhaust Screen** in this section.

NOTE: An optional exhaust screen with larger holes (3/4") is available for use when mowing in wet grass; the screen provides less airflow restriction and more clog resistance (use standard screen in dry conditions to avoid excessive material blowing out of the catcher).

Remember, anything that restricts airflow or material flow along the entire path from the mower deck to the grass catcher can cause clogging.

Using the Tilt-Up Deck

Refer to **CLEANING** of **Grass Buildup in Mower Deck Housing** in **Maintenance Instructions.**

Using the GHS Catcher

Powerfil ®

The GHS catcher has an oscillating grass delivery spout **(POWERFIL®)** which is designed to spread grass clippings throughout the interior of the grass catcher (even when mowing wet, heavy grass). The oscillating action may be checked by turning the ignition switch to the **ON (RUN)** position and moving the blade clutch to the **ENGAGED** position. The spout should oscillate approximately 35 cycles per minute.

NOTE: If the grass spout fails to oscillate, the clutch switch should be checked for function.

"Full" Signal Horn

The GHS catcher has a **"full" signal horn** to alert the operator to **dump the catcher when it is full** (to prevent overfilling and clogging). The "full" signal horn is activated by a vane switch (Grass-Pak® switch) mounted on the grass delivery spout. Oscillating action of the spout triggers the vane switch as grass begins to fill in around the spout when the catcher is almost full.

The "full" signal function may be checked by turning the ignition switch **ON (RUN),** engaging the blade clutch (engine not running), opening the catcher back door, and triggering the Grass-Pak® vane by hand as it oscillates. The horn should sound as the switch is moved in one direction.

WARNING

DO NOT test the Powerfil® oscillation or Grass-Pak® switch with the engine running. Projectiles may be thrown out of the grass delivery spout, and COULD cause serious injury.

The "full" signal horn is designed to operate (sound) when the grass catcher is **almost full.** The timing of the signal is adjustable by changing the position of the vane on the Grass-Pak® switch. If the signal is coming on too soon (catcher not completely full) or too late (grass clogging in catcher spout and delivery chute), refer to **ADJUSTMENTS** for **GHS "Full" Signal Horn Adjustment** in **Maintenance Instructions.**

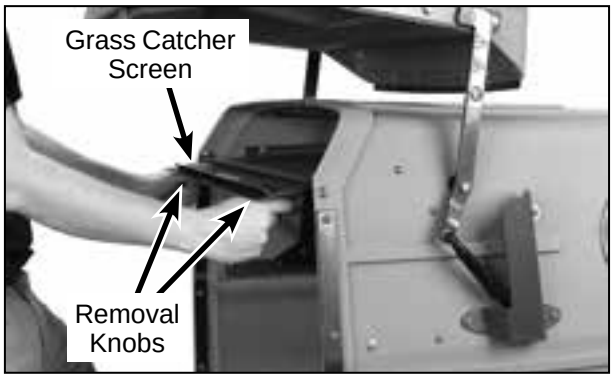
NOTE: The horn signal should be adjusted to sound **BEFORE the catcher is completely full** to give the operator time to react and stop mowing. An indication the horn signal is coming on too late (delayed too much) is if grass clippings are falling out of the grass catcher delivery chute when the catcher is dumped.

Operating Instructions

Cleaning the GHS Exhaust Screen

To remove the grass catcher screen for cleaning, open the catcher door, push forward and pull down on the grass catcher screen knobs (on either side of the screen), and slide the screen out. Use a high pressure washer or water spray and brush to clean the screen.

Keeping the catcher exhaust screen clean and open is essential to good performance of the catching system. In some mowing conditions, e.g., wet and dirty, it will be necessary to clean the screen frequently to avoid clogging the mower deck, blower, and chutes due to airflow restriction.



Grass Catcher Screen Removal for Cleaning

Dumping the Catcher

DANGER

Do not mow or dump grass within 5 feet (1.5 meters) of an embankment or retaining wall with drop off.

For dumping, the catcher either tailgate dumps into a disposal area or dumps into the optional dump bag. The dump bag is a **reusable** nylon fabric bag designed to conveniently move grass clippings from the catcher to a remote disposal area or container.

CAUTION

Use leg muscles and firm footing when lifting the catcher to dump; avoid bending at the waist and using back muscles in order to prevent back injury.

Tailgate Dumping

1. Open the back door by lifting on the door handle.
2. Tilt the catcher back to dump by lifting on the catcher lift handle on the lower front corner of the catcher.
3. Lower the catcher smoothly down to the normal operating position. **DO NOT allow the catcher to drop down - the gas spring, that holds the catcher in the raised position, is not a shock absorber for lowering the catcher.**
4. Close the door by pulling down on the door handle. The door should close smoothly with the assistance of the gas springs. If the dampening springs are not functioning properly, they should be replaced to prevent the door from slamming closed and possibly causing a pinch point.

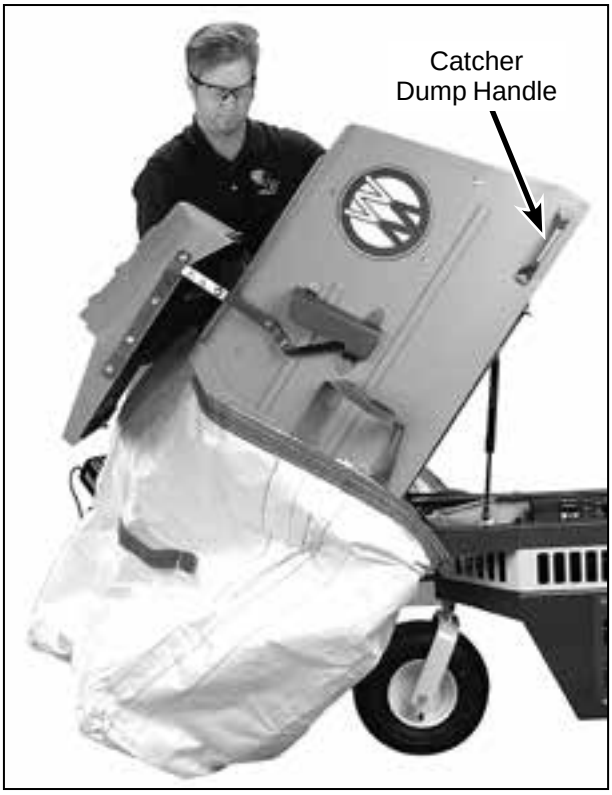
Operating Instructions

Using the Dump Bag

1. Open the back door by lifting on the door handle.
2. Orient the dump bag with one of the handle straps on the bag opening facing up.

Positioning Dump Bag on Catcher

3. Hook the bottom of the bag over the rear bumper while lifting on the handle strap.
4. Tilt the catcher back to dump into the bag by **lifting on the catcher lift handle** on the lower front corner of the catcher **with the one hand** while continuing to **hold up on the bag strap with the other hand.** Refer to photos for positioning the bag and dumping.
5. Lower the catcher smoothly down to the normal operating position. **DO NOT allow the catcher to drop down - the gas spring, that holds the catcher in the raised position, is not a shock absorber for lowering the catcher.**



Dumping Catcher into Dump Bag

6. Close the door by pulling down on the door handle. The door should close smoothly with the assistance of the gas springs. If the dampening springs are not functioning properly, they should be replaced to prevent the door from slamming closed and possibly causing a pinch point.

Maintenance Instructions

CAUTION

Maintenance procedures requiring special training or tools should be performed by a trained technician.

MAINTENANCE SCHEDULE CHART - RECOMMENDED SERVICE INTERVALS - MODEL S14								
Service Item	**Daily**	**25 Hours**	**50 Hours**	**100 Hours**	**400 Hours**	**Yearly**	**Every 2 Years**	**Ref. Page**
Check Engine Crankcase Oil Level	x							46
Check/Clean Engine Air Cooling System*	x							55
Clean Grass Buildup Under Deck	x							56
Clean GHS Exhaust Screen*	x							56
Clean GHS Blower*	x							56
Service Mower Blades	x							58
Check Security of Air Filtration Components	x							57
Lubricate Grease Fittings and Oil Points*		x						47
Check Battery Electrolyte Level		x						57
Check Transaxle Fluid		x						50
Check Tire Pressure		x						58
Check Drive Belts (Engine, PTO, Ground Drive)		x						60
Check PTO and Deck Gearbox Oil Seals		x						60
Check Safety Switch System		x						61
Change Engine Crankcase Oil **			x					47
Clean Fuel Filter			x					54
Check Air Filter Element*				x				53
Cleaning Transaxle Housing				x				57
Check/Regap Spark Plug				x				60
Check Wheel Bolt Torque (75 to 85 lb·ft)				x				58
Check Blade Brake Action				x		x		60
Change Transaxle Oil and Filter					x			51
Clean Engine Cooling Fins						x		55
Check Fuel Lines and Clamps						x		60
Replace Air Filter Element and Dust Ejection Valve ***						x		53
Service Battery						x		57
Check/Adjust Vertical Position of Grass-Pak® Switch						x		76
Check/Adjust FSC Friction Lock						x		61
Replace Fuel Lines and Clamps							x	60

* **More often in extremely dusty or dirty conditions (see notes about air cleaner element under IMPORTANT TIPS FOR CARE OF THE SUBARU ENGINE)**

** **Change engine oil after first 8 hours of operation of a new engine (break-in period)**

*** **Air cleaner is remote mounted Donaldson Radialseal unit, replace filters every year and dust ejection valve every year or when worn or damaged**

IMPORTANT TIPS FOR CARE OF THE SUBARU ENGINE

Fuel System

- Fuel must be clean - free from water, dirt, and organic material.

- Clean the fuel filter on a regular basis and when contamination is suspected or found in the fuel.

Starting/Stopping

- Start engine with the throttle advanced off idle (1/4 to 1/2 throttle). This will aid starting, especially in cold weather.

- Keep the battery fully charged.

- Match crankcase oil viscosity to the ambient temperature, allowing the engine to crank faster and start easier.

- Allow engine to run at idle for a few seconds before stopping engine to avoid run-on or backfiring.

Cooling System

CAUTION

DO NOT use a pressure washer to clean the cooling system on an air-cooled engine, mud may form under the cooling shroud on the cylinder head and cooling fan.

- Keep engine air intake screen and cylinder head fins free of grass clippings, chaff, and dirt. Inspect intake screen and cooling fins for cleanliness and no damage.

- Check performance of the cooling system by starting the engine, holding a hand adjacent to the cylinder head, and feeling the cooling airflow.

DANGER

Make sure to keep hands clear of exhaust pipe, muffler, and moving parts when checking airflow.

- Operate the engine at full speed when mowing. This allows the engine to produce full horsepower and move more cooling air through the engine cooling fins.

Air Cleaner System

- Use **only** Donaldson air cleaner elements. Aftermarket elements may not seal in the air cleaner housing, allowing dirt to enter the engine. Also, aftermarket filters often skimp on the filtration media and require more frequent replacement (see following instructions).

- **DO NOT overservice** or frequently “disturb” the **air filter.** A dirty air filter actually cleans better than a new one. Changing the air filter too often can actually reduce filter efficiency and increase the opportunity for traces of dust to enter the engine.

- When the air filter element is removed or replaced, make sure all **dust is cleaned out** of the **air cleaner housing and hose.** Use a damp cloth and wipe the interior of the canister and hose clean (a little dirt left here will be sucked into the engine and reduce engine life). When the filter is reinstalled, make sure the **element is held tight and straight** in the canister for proper seating and sealing.

- Periodically check the air intake hose for cuts, nicks, etc., and the hose clamps for tightness.

Oil

- **DO NOT** screw filler cap into crankcase when checking oil level.

- Single viscosity or multi-viscosity oils may be used with the viscosity matching ambient temperatures for the engine operating conditions. This will **aid starting** in cold weather and assure proper lubrication in hot weather.

LUBRICATION

> ***WARNING***
>
> **DO NOT attempt to lubricate the machine with the engine running. Disengage the PTO clutch, shut off the machine, and remove the ignition key.**

Proper lubrication is an important maintenance procedure. It reduces wear and makes the machine quieter and easier to operate.

Engine Oil

Engine Break-In Oil

No special break-in oil is required. The engine is serviced with 10W-30, Service Class SG oil from the factory. Change the oil after the initial engine **break-in period** of **8 hours.** Thereafter, change oil **after every 50 hours** of operation.

Checking Engine Crankcase Oil Level

Check the engine crankcase oil level before use and **after each 5 hours** of continuous operation.

IMPORTANT: The importance of checking and maintaining the proper crankcase oil level cannot be overemphasized. Check the oil level **BEFORE EACH USE.**

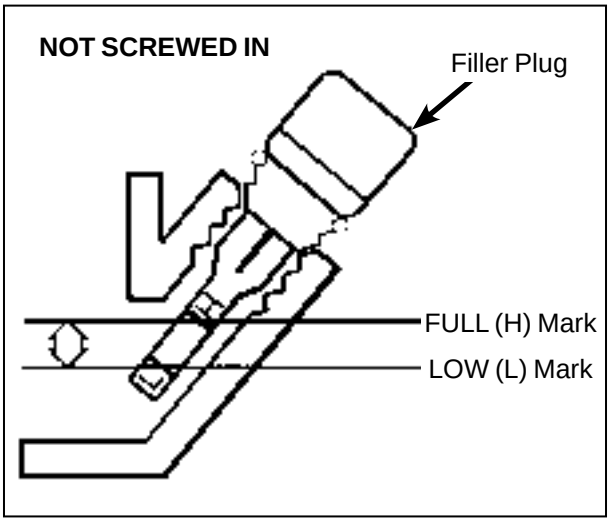
1. Park the mower on a **level surface with the engine stopped.** Also, make sure the engine is cool and oil has had time to drain into the sump (allow **at least five (5) minutes** after stopping the engine).

   IMPORTANT: NEVER check or add oil with the engine running.

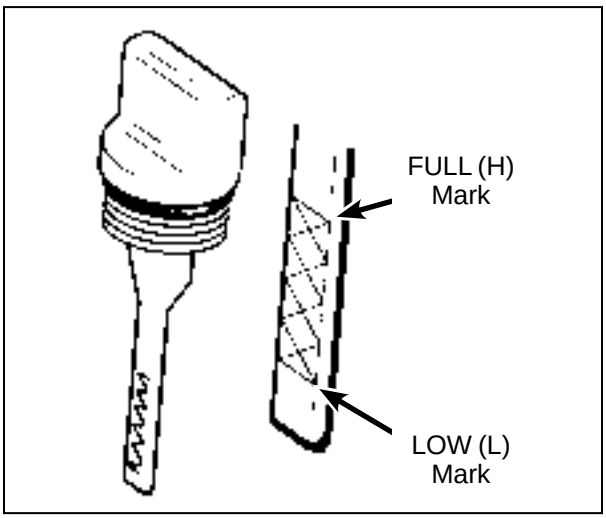
2. Before removing the dipstick, clean the area around the dipstick opening in the engine block to keep any dirt or debris out of the engine.

3. Unscrew and remove the filler plug/dipstick and wipe off with a clean rag. Insert dipstick into filler hole but **DO NOT screw it in** to check the oil level. Remove the dipstick and check the level. The oil level should be within the safe range (between the **H** and **L** marks on the dipstick).

   IMPORTANT: DO NOT operate engine without a sufficient oil supply in the crankcase. **DO NOT** operate with oil level below the **LOW (L)** mark or above the **FULL (H)** mark on the dipstick.



Dipstick Position for Checking Oil Level



Dipstick Operating Range

4. If additional oil is needed, refer to **Specifications** for proper crankcase lubricant. **Fill to the FULL (H) mark.**

   IMPORTANT: DO NOT overfill crankcase [oil above **FULL (H)** level] as this **CAN** result in engine overheating, loss of power, and possible engine damage.

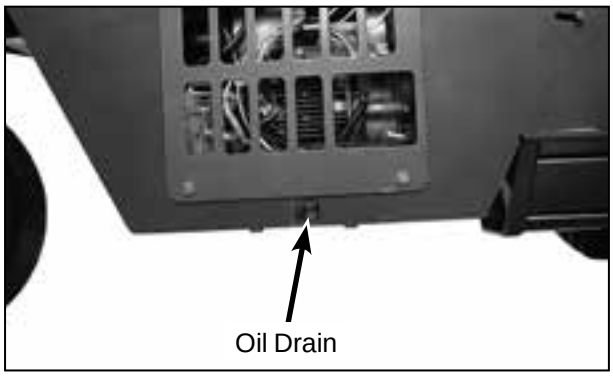
Changing Engine Crankcase Oil

Change the engine crankcase oil **after every 50 hours** of operation as follows:

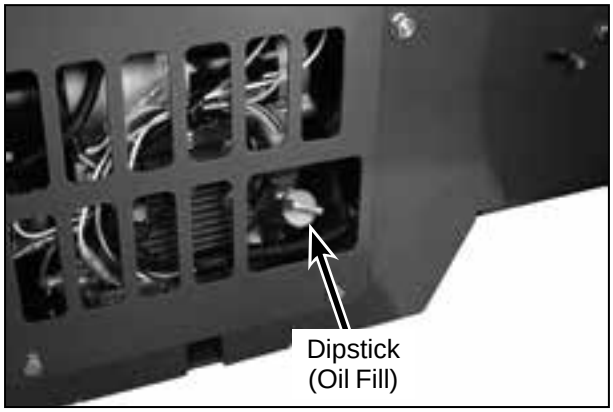
1. Park the mower on a **level surface with the engine stopped.** The engine oil should be warm before draining. If not warm from operation, start the engine and run a few minutes to warm the oil.

2. Before removing the dipstick, clean the area around it to keep any dirt or debris out of the engine.

3. Remove the dipstick and oil drain plug, and drain oil into a suitable container. Be sure to allow ample time for complete drainage.



Oil Drain Location
(View from Lower Right Side of Tractor)



Dipstick (Oil Fill) Location
(View from Lower Right Side of Tractor)

4. Reinstall the drain plug. Make sure it is tightened to 16.5 lb·ft (23 N·m).

5. Fill the crankcase (through the dipstick opening) with oil using only crankcase lubricants recommended by the engine manufacturer. Refer to **Specifications** in this manual or the engine owner's manual. Use the recommended oil viscosity for the expected ambient temperature. Oil with the correct viscosity will aid starting in cold weather and assure proper lubrication in hot weather. **Fill to FULL (H) mark** on the dipstick; crankcase capacity is 2.7 pints (1.3 liters).

   IMPORTANT: Check the dipstick reading before adding the last 1/2 pint of oil and **fill only to the FULL (H) mark.** The oil level should never be over the **FULL (H)** mark on the dipstick; overfilling can result in engine overheating and loss of power.

6. Start and run the engine. Stop the engine, recheck the oil level, and add oil if necessary.

Grease Fitting and Oil Point Lubrication

Lubricate the grease fittings and oil points after **every 25 hours** of operation. Lubricate **more often** when operating in **dusty or dirty conditions.** Use SAE general purpose lithium or molybdenum base grease for grease fittings and light machine oil (SAE 10) to lubricate oil points. **Lubricate the locations shown in the Chassis and Deck Lubrication Points illustration.**

NOTE: PTO universal joints (on the deck and tractor) require routine lubrication **after every 8 hours** of running time.

NOTE: The flange bearings on the PTO drive shaft are sealed and do not require periodic maintenance.

Ident No.	Location	Lubrication Type	No. Places
1	Deck Caster Wheel Fork Pivot	Grease	2
2	Deck Caster Wheel Bearing	Grease	2
3	Blade Spindle	Grease$^{\Delta}$	2
4	Pivot Assembly, Tilt-Up Deck	Grease	4
5	Deck Support Arm Socket	Grease	2
6	Universal Joint Shaft Assembly	Grease**	1
7	Tee Gearbox, Deck	Oil*	1
8	Blade Drive Gearbox	Oil*	2
9	FSC Lever Pivot	Grease	1
10	Steering Lever Pivot	Grease	2
11	Deck-to-PTO Coupling (Grease Spline Slide Area)	Grease	1
12	Transaxle Oil Reservoir	Oil/20W-50	2
13	Universal Joint Tube Assembly	Grease**	1
14	Deck Support Arm Pivot	Grease	2
15	Hydro Idler Pivot	Grease	1
16	PTO Clutch Lever Pivot	Grease	1
17	Body Latch Pivot	Oil	1
18	Clutch Actuator Spring Assembly (Grease Slide Area)	Grease	1
19	PTO Belt Tightener Pivot	Grease	1
20	Engine Dipstick / Oil Filler	Oil***	1
21	Catcher Hinge Point	Oil	2
22	Choke Control Cable Ends	Oil	2
23	Throttle Control Cable Ends	Oil	2
24	Engine Idler Pivot	Grease	1
25	Parking Brake Lever	Grease	1
26	Choke Control Pivot	Oil	1
27	Throttle Control Pivot	Oil	1

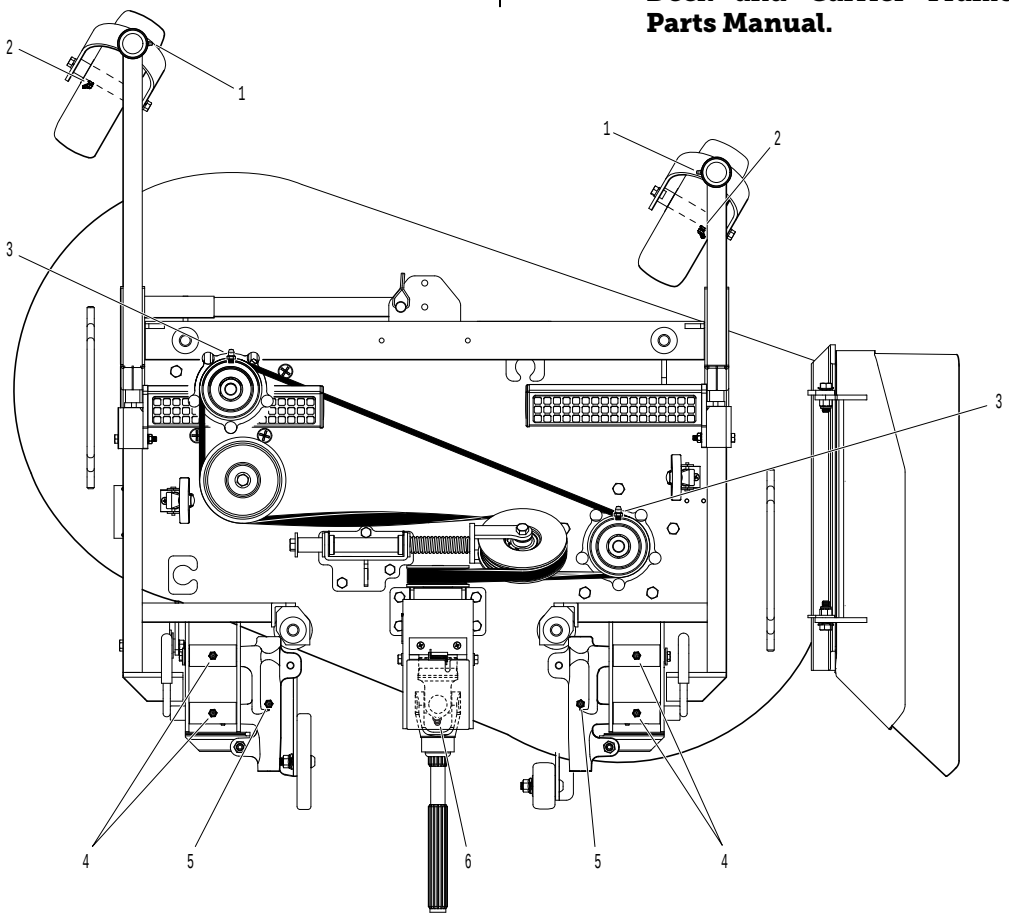
***** Gearboxes are permanently lubricated and sealed requiring no scheduled lubrication. Oil level should be checked only when an oil leak is noted.

****** Grease every eight (8) hours.

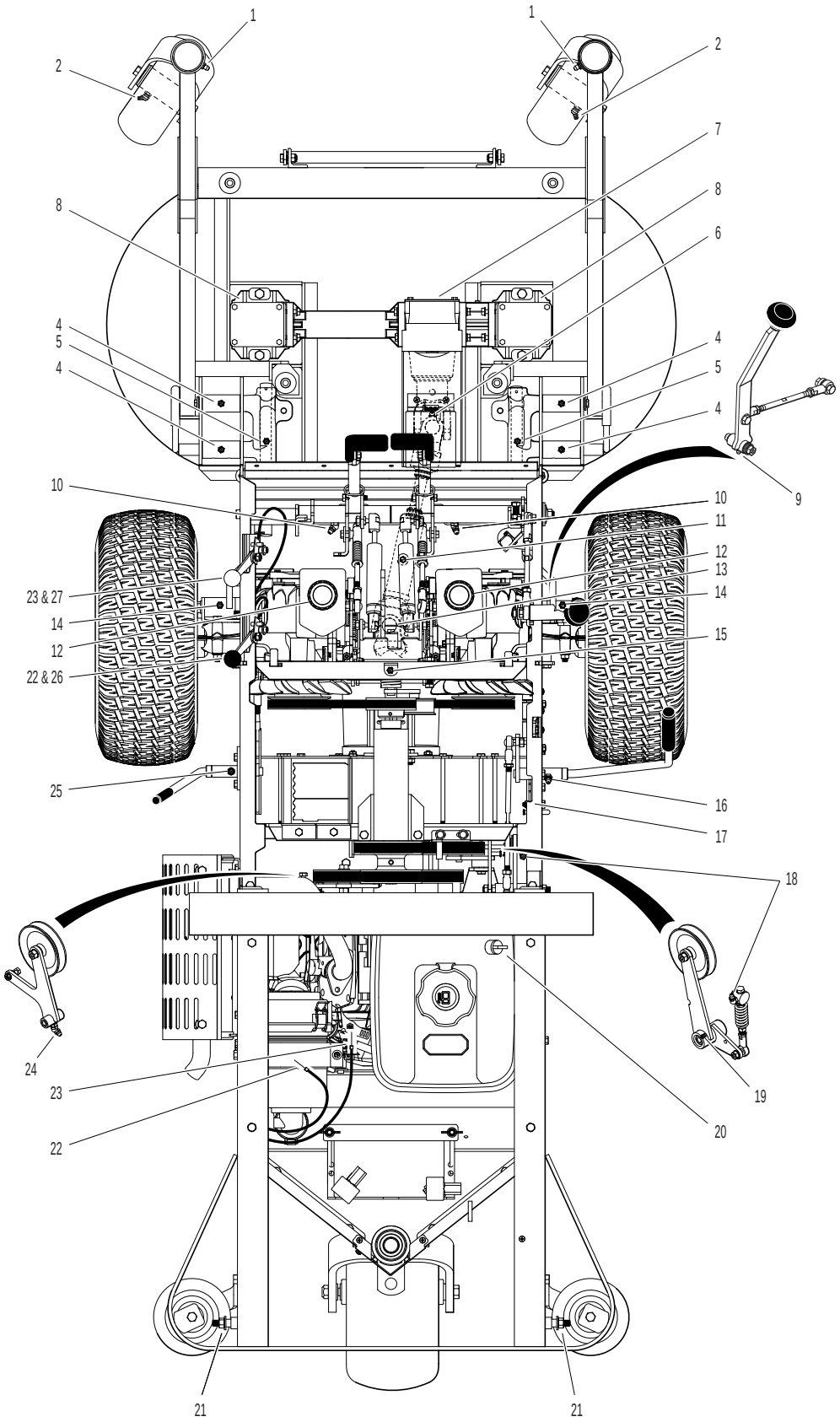
******* Refer to **Engine Oil** located on page 46.

Δ Belt Driven Decks Only

NOTE: DS42 Belt Drive and DC36R Tilt-Up Decks are shown for reference. For other Deck Lubrication Points, Refer to **Deck and Carrier Frame Illustrated Parts Manual.**



Lubrication Points for Optional Belt Driven Decks (DS42 Belt Drive Shown)

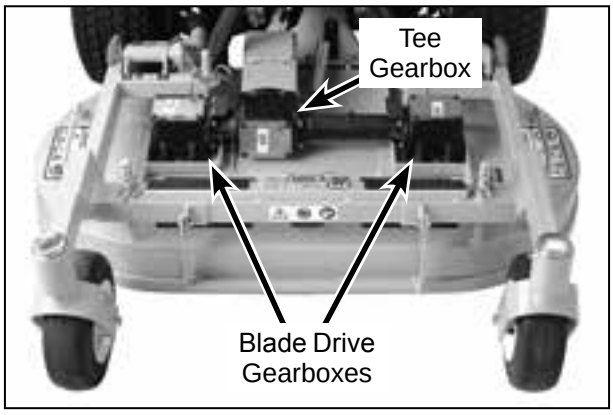


Chassis and Deck Lubrication Points (DC36R Shown)

Mower Deck Gearbox Lubrication

On gear driven decks, the mower deck gearboxes (tee gearbox and blade drive gearboxes) are connected as a unitized assembly, and oil flows freely between them. The gearboxes are permanently lubricated (oil filled) and sealed requiring no scheduled lubrication. However, the gearbox oil seals should be checked **every 25 hours** for indication of an oil leak; **particularly the lower seals** on the blade drive gearboxes should be inspected, since they operate in a dirty environment. If an oil leak is noted, replace the oil seal and relubricate the gearbox assembly as follows:

1. Remove gearbox cover (footrest). Deck orientation should be the normal operating position.



Mower Deck Gearboxes (Shown with Gearbox Cover Removed for Clarity)

2. Clean the area around the individual gearbox cover plates to prevent contaminants from entering the gearcase.

3. Remove the screws securing the cover plates on the blade drive gearboxes.

4. Check the level of lubricant in the gearboxes. If the lubricant is low, add SAE E.P. (Extreme Pressure) 80W-90 (API GL-5) gear lube until the oil level is up to (submerges) the horizontal shaft in the gearbox (shaft parallel to cover plate).

   NOTE: In case the gearboxes are completely drained of oil, approximately 5 fl. oz. (15 cl) of oil per gearbox is required to refill the gear drive assembly.

   NOTE: Since the gearboxes are connected as a unit by connector tubes, it is necessary to add oil slowly. Allow a few minutes after adding oil for the oil to flow throughout the assembly and the oil level to stabilize before reassembly.

   IMPORTANT: DO NOT overfill the deck gearboxes. The gearbox assembly is not vented, and overfilling with oil will cause excessive pressure and result in oil leaks.

5. Check condition of the cover gasket and replace if worn or damaged. Reinstall gearbox cover plates; torque screws to 24 lb·in (3 N·m).

Mower Deck Spindle Lubrication

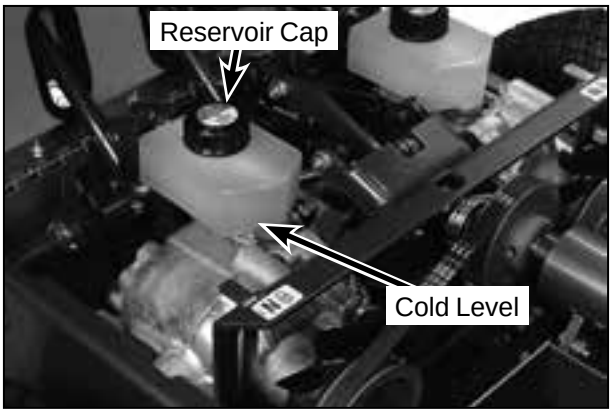
For the DS42 Belt Drive mower deck, lubricate each deck spindle grease fitting **every 25 hours.** Use SAE general purpose lithium or molybdenum base grease for grease fittings.

Transaxle Lubrication

- The transaxle oil lubrication is SAE 20W-50 (API Service Class SL or higher) engine oil.

- Inspect both transaxle cases and hoses **after every 100 hours** of operation for visible leaks.

- The fluid level of each transaxle can be checked visually by looking at the fluid level in the expansion reservoir. When the transaxles are cold, the fluid level in the expansion reservoir should be between 1/4 in. and 1/2 in. (0.64 cm and 1.27 cm).



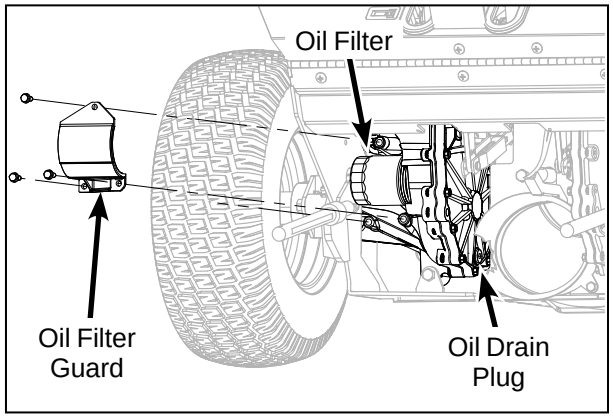
Expansion Reservoir Location

Transaxle Oil and Filter Change

Change the transaxle oil after the initial **break-in period** of **75-100 hours.** Thereafter, change oil **every 400 hours** of operation as follows:

1. Thoroughly clean the exterior of the transmission housing before servicing. Remove expansion tank cap to allow venting. Using a 1/4 in. hex wrench, remove the plug on the lower inside of each transaxle allowing the oil to drain.

2. Remove the oil filter guard, remove and replace the oil filter using an oil filter wrench. Tighten filter by turning filter 3/4 to 1 turn after gasket contacts the filter base surface. Reinstall the oil filter guard. (Refer to **Transaxle Oil Drain Plug, Filter, and Guard Location** illustration.)



Transaxle Oil Drain Plug, Filter, and Guard Location (Shown with Deck Support Arms Removed for Clarity)

3. Reinstall drain plugs.

4. Fill the transaxles with 20W-50 (API Service Class SL or higher) oil through the reservoir. Fill up to the opening.

5. Fill both reservoirs to a maximum oil level of 1/4 in. (6.35 mm) with 20W-50 (API Service Class SL or higher) oil.

6. Start and drive the unit for 1 - 2 minutes.

7. If the transaxles sound noisy or have poor steering response, there may be air trapped in the transaxles. Follow purge instructions below.

8. If oil needs to be added refer back to steps 4-7.

9. To purge air from transaxle, raise unit and block with tires off the ground. With engine running, slowly move Forward Speed Control forward and backward 5 to 6 times. Turn off engine and check oil level and add if needed. Repeat procedure until transaxle operates at normal noise levels and move smoothly in forward and reverse.

CLEANING

CAUTION

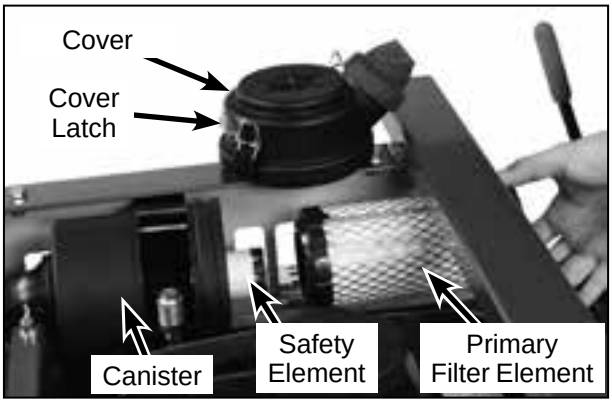
If a pressure washer is used on the exposed working parts, avoid water on the electrical parts and the engine cooling system.

Engine Air Cleaner System

Donaldson Radialseal™ Air Cleaner

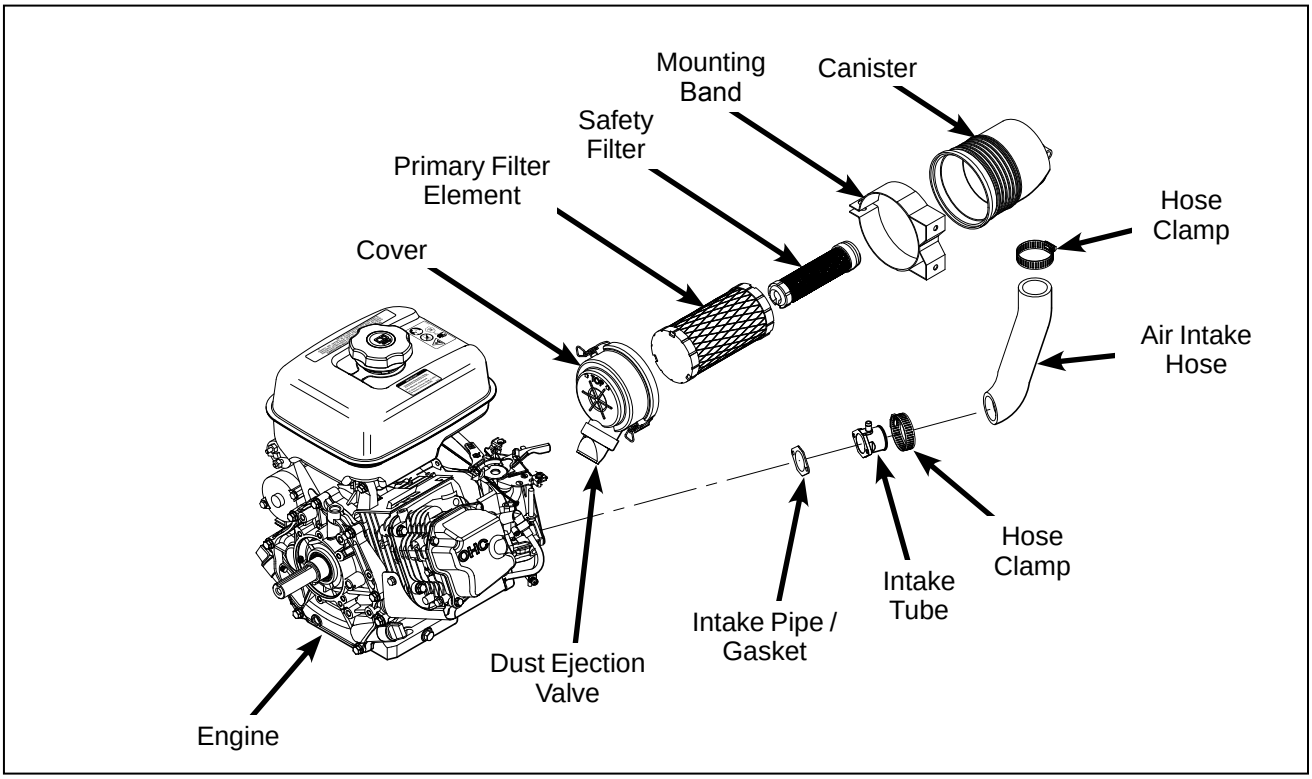
A remote mounted Donaldson Radialseal™ air cleaner provides the air filtering function. The paper filter element slides over an outlet tube inside the air cleaner canister with **radial** sealing action, eliminating the possibility of dust leaks due to improper filter installation. Intake design, internal baffling, and a dust ejection valve provide dust separation and automatic precleaning action. Daily or frequent servicing of the air cleaner **is not required.**

IMPORTANT: Use **only** Donaldson air filter elements for replacement (Donaldson P822686 or Walker 5090-1). Aftermarket filters may not seal properly or filter efficiently.



Air Cleaner Components (Shown with Cover Removed)

IMPORTANT: The Donaldson air cleaner uses a dry paper-type air filter element. **NEVER** apply oil to the paper element.



Engine Air Cleaner System Components

Inspect the paper element **after every 100 hours** of service and **replace** the element and safety filter **yearly** (or when dirty or damaged). More frequent replacement may be required when operating in extremely dusty conditions. Service the air cleaner as follows:

1. Release the top and bottom cover latches and remove the air cleaner cover. Wash the cover and dust ejection valve. Check that these components are in good condition. The dust ejection valve is subject to wear and deterioration and should be replaced **yearly** or when damaged. The lips of the valve should close and fit together; any cracks, deformation, or wear in the valve is cause for replacement.

2. Remove the filter element by pulling it out of the canister. There will be some initial resistance as the filter seal breaks loose and slides off of the outlet tube. **Gently** move the end of the filter up and down and side to side or twist to loosen the seal. Use gentle action to minimize the amount of dust dislodged as the filter is removed.

3. Use a bright light inside the element to inspect for damage. Check the element very carefully for **pin holes or other damage** that will allow dirt to leak through the paper media. Replace filter element if dirty or damaged.

   NOTE: Washing the element in water or cleaning solution is **not recommended.** Do not try to clean the element with compressed air.

4. Without removing, visually inspect the condition of the safety filter for damage or holes. The safety filter should only be removed for yearly replacement (or when dirty or damaged).

5. Check the condition and resilience of the radial sealing surface (inside of the open end) of the filter. Replace the filter if any cracks, tears, or other damage to the sealing surface are noted.

6. Use a clean, damp cloth and wipe the interior of the air cleaner canister clean. Use special care to clean **both the inside and outside** surfaces of the outlet tube.

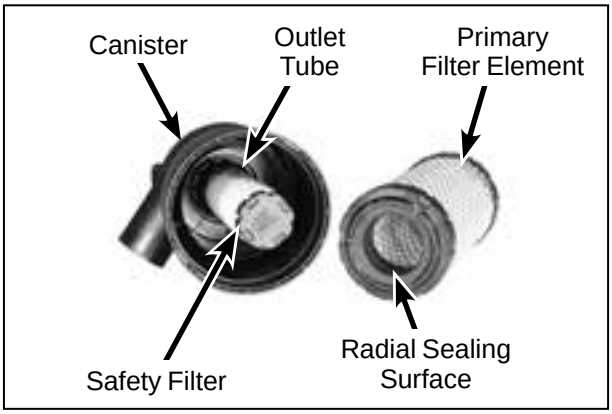
   IMPORTANT: Any dust left on the inside of the outlet tube will go into the engine and cause wear.

7. Check the outside surface of the outlet tube for smoothness and cleanness (this is the sealing surface).

8. Insert and seat the safety filter and primary filter element carefully into the canister, applying pressure at the outer rim of the filter; not at the flexible center. Make sure the filter element is completely in place before installing the cover.

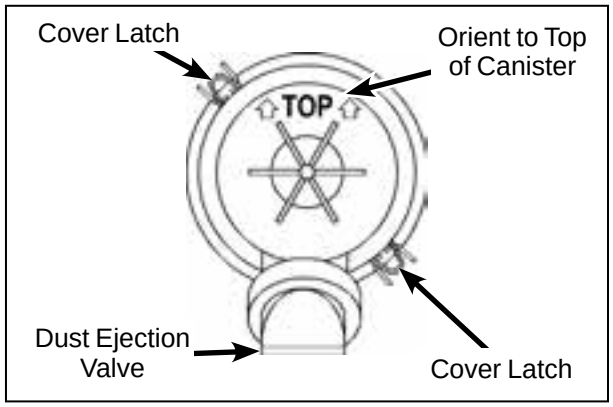
   IMPORTANT: DO NOT use the **cover latches** to force the filter into the canister -- the cover should fit on with **no extra force.**

   NOTE: DO NOT use petroleum based lubricants on the sealing surfaces of the filter; use talcum powder or dry silicone lubricants if required for filter installation.



Air Filter Element Replacement

9. Install the cover with the word “TOP” properly oriented to the top of the canister. Give the cover a slight twist as it reaches the canister to make sure the tab inside the cover goes into a slot, otherwise the cover will not fit properly. Make sure both the top and bottom cover latches are securing the cover in place.

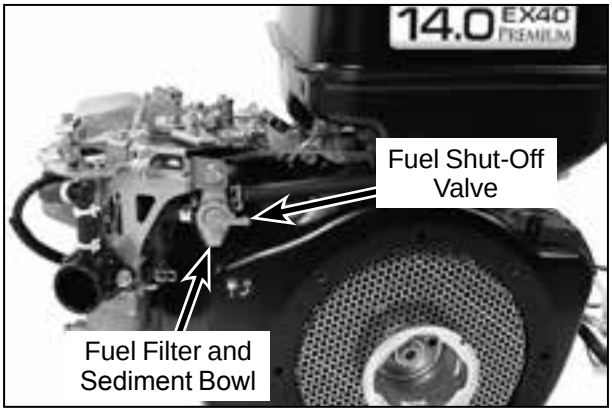


Proper Orientation of Air Cleaner Cover

10 Check the air intake hose for cuts, nicks, cracks, etc., and the hose clamps for tightness.

Fuel Filter

Clean and inspect the fuel filter screen **after every 50 hours** of service. Replace if damaged. Service the fuel filter as follows:



Fuel Filter and Fuel Shut-off Valve Location

IMPORTANT: Service the fuel filter screen only in a clean area where the fuel filter components will not be contaminated by any dust and dirt.

DANGER

Gasoline is extremely flammable and can be highly explosive. To minimize danger:

- **Use an approved fuel container for gasoline.**
- **DO NOT allow open flames or sparks while performing maintenance or refueling; DO NOT smoke while working with fuel.**
- **Wipe up spilled gasoline immediately and completely.**

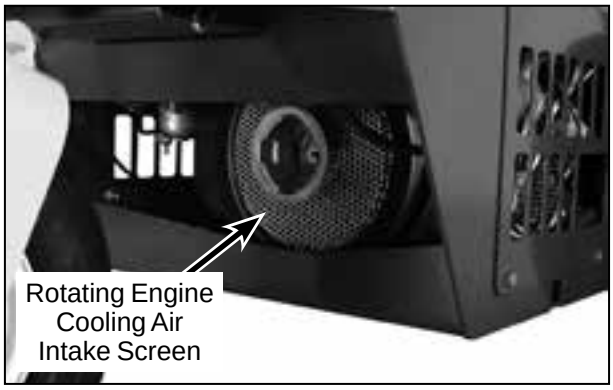
1. Close the fuel shut-off valve.
2. Loosen sediment bowl and remove filter screen and gasket. Replace filter screen if damaged.
3. Remove any sediment, wipe clean and reinstall assembly.
4. Open the fuel shut-off valve.

Engine Cooling System

Cooling Air Intake Screen

To prevent engine overheating and possible engine damage, clean grass clippings, chaff, and dirt from the rotating engine cooling air intake screen **after every 8 hours** of operation. In certain mowing conditions (dry grass, leaves, tree "cotton", etc.), it may be necessary to check and clean this area several times each day to prevent engine overheating.

> ***CAUTION***
>
> **Operating the engine with a blocked air intake screen, dirty or plugged cooling fins, and/or cooling shrouds removed will cause engine damage from overheating.**



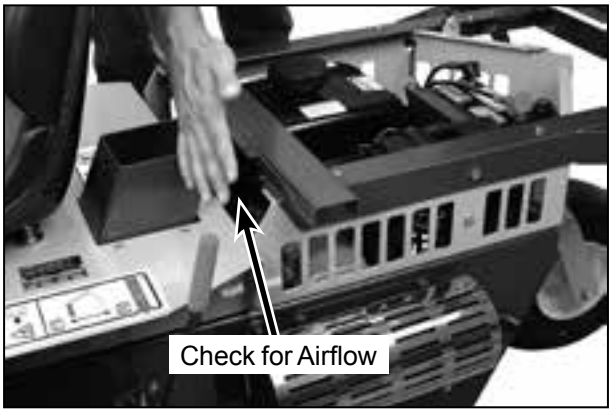
Keep Rotating Engine Cooling Air Intake Screen Clean

Cylinder Head Cooling Fins

It is essential for performance and longevity of the air-cooled engine to keep the cylinder head cooling fins clean and free of obstruction. **After every 8 hours** of operation, check the performance of the cooling system by starting the engine, holding a hand adjacent to the cylinder head, and feeling the cooling airflow. If there is little or no airflow, clean the cooling fins as follows:

> ***DANGER***
>
> **Make sure to keep hands clear of exhaust pipe, muffler, and moving parts when checking airflow.**

NOTE: The planned maintenance schedule calls for cleaning the cylinder head cooling fins **yearly or every 300 hours** as a minimum.

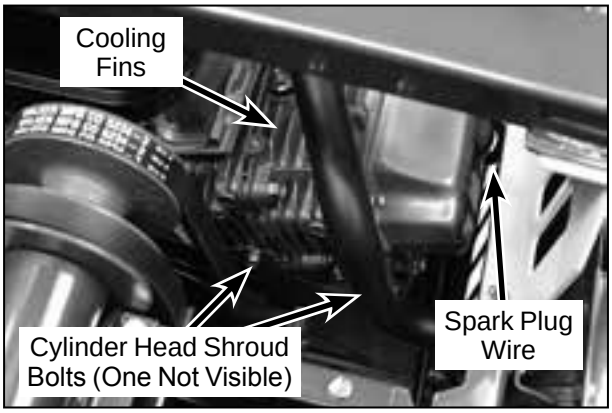


Cooling System Airflow

1. Inspect accessible cooling fins and clean with compressed air as needed. If the buildup is excessive, refer to step 2.

2. Remove the cylinder head shroud by removing the two (2) bolts as shown in the **Inspect and Clean Cylinder Head Cooling Fins** photo. Slide the shroud forward to disengage the tabs at the back of the shroud, and then drop the shroud down under the cylinder head and remove. Clean the cooling fins with compressed air. If the buildup is excessive, use a wire to probe between fins and dislodge any debris.

3. Reinstall the shroud by reversing the preceding step. Make sure that the tabs at the back of the shroud are correctly inserted underneath the cylinder head. Start the engine and confirm cooling airflow.

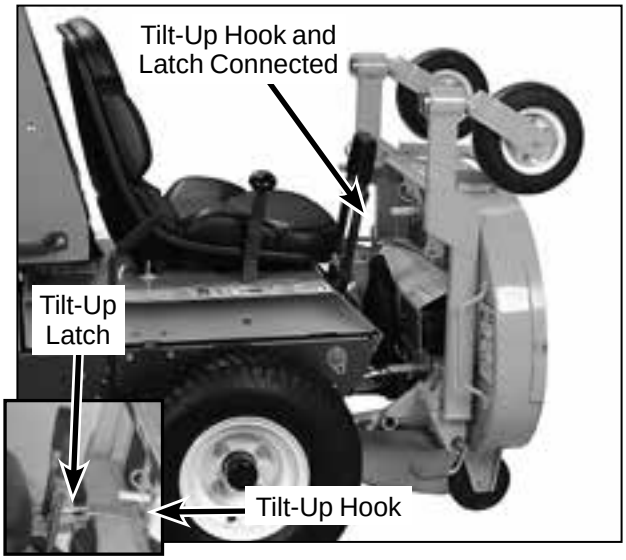


Inspect and Clean Cylinder Head Cooling Fins (Viewed from Left Front Side of Tractor)

Grass Buildup in Mower Deck Housing

> ***DANGER***
>
> **Before raising or removing the mower deck for cleaning, stop the engine, remove the ignition key, and disconnect the spark plug wire.**

1. **Raise** the deck lock lever handle on each side of the carrier frame **and pull out** to release carrier frame for tilting action.
2. Using the carrier frame lift handle, raise deck to the **TILT-UP** position and insert the deck hook into the tilt-up latch on the tractor body.



Deck Secured in TILT-UP Position

> ***DANGER***
>
> **Do not operate the mower with deck in TILT-UP position. Do not move the tractor with the deck in the tilt-up position.**

3. Clean grass buildup underneath the deck using a pressure washer (and scraper if required).

   NOTE: If the buildup is severe, it may be easier to clean the deck by removing the deck assembly from the tractor and standing the deck assembly on its “nose”.

   NOTE: While some degree of material buildup in the mower deck housing can be tolerated, a point is finally reached **where cutting quality deteriorates and clogging begins to occur** because of too much buildup on the baffling and housing.
4. Lower the deck to the normal operating position and re-engage the deck lock levers.

> ***CAUTION***
>
> **Do not operate machine with deck tilt-up pivot joint unlocked.**

GHS Blower

Normally, the GHS blower operates with no maintenance or cleaning. However, when mowing **grass that is dirty and damp** (especially certain springtime mowing conditions), a deposit of dirt may accumulate inside the blower housing, causing wear and binding of the blower wheel. When operating in these conditions, **inspect the blower frequently for dirt buildup.**

NOTE: A visual clue of binding of the blower wheel is the blower **blade tips are polished** from rubbing on dirt.

If a dirt deposit is found, the best way to remove it is by mowing grass with high moisture content (such as early morning dew or recent irrigation). The wet grass will break down and remove the deposit.

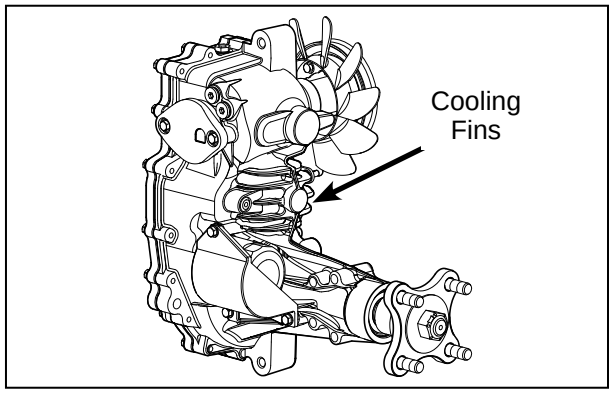
GHS Exhaust Screen

Refer to **Cleaning the GHS Exhaust Screen** in **Operating Instructions.**

Transaxle Housing

Keeping the housing on the transaxles clean and free of obstruction is **essential to avoid overheating** the transmission fluid and shortening transmission life. The housing should be checked **every 100 hours;** and cleaned if necessary.

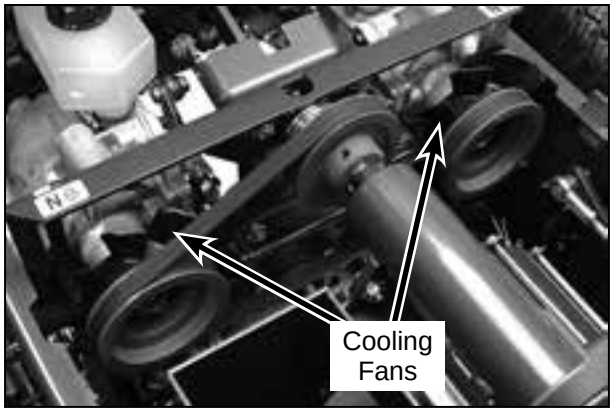
To clean the housing, use compressed air and/or a pressure washer. Pay close attention to any oily dirt build up on the transaxle housings. This may be the result of an oil leak. If an oil leak is noticed, contact your local Walker dealer.



Transaxle Housing and Cooling Fins

IMPORTANT: In case an oil leak develops on the input shaft, the cooling fan blowing dusty air and oil on the transmission will **quickly** pack the cooling fins with **oily dirt.** If this condition occurs, contact your dealer immediately to avoid overheating and damaging the transaxle.

An additional procedure in maintaining transaxle cooling is to inspect the cooling fans. Replace the fan(s) if blades are missing or damaged.



Transaxle Cooling Fans

CHECKING/SERVICING

DANGER

To prevent accidental starting of the engine when servicing or adjusting the machine, remove the key from the ignition switch and disconnect the spark plug wire.

Security of Air Filtration Components

NOTE: The following inspection is **only an external inspection** and should be done without **"disturbing"** the filtration components.

On a daily basis, visually inspect the external condition of the complete air cleaner system. The following items should be inspected:

1. Check the Donaldson Radialseal™ air cleaner canister for damage. Make sure the cover is in place and the cover latches are secure - do not run the engine without the air cleaner cover in place and secure.

2. Inspect the air intake hose for cracks, nicks, cuts, etc., and check the hose clamps for tightness.

Battery

NOTE: For initial battery service during setup, refer to **Battery Service** in **Assembly Instructions.**

IMPORTANT: Make sure battery is securely mounted in the frame. A loose battery may cause damage to the case resulting in acid leakage and severe damage to the machine. A hazard may be created by damage to critical working parts and safety systems.

Electrolyte Level

The battery electrolyte level should be checked **after every 25 hours** of operation. To check electrolyte level:

1. Remove battery cell filler caps.

2. Check the electrolyte level. If the level is below the bottom of the vent well, fill with drinking water to the bottom of the vent wells [1/4 to 1/2 in. (6 to 13 mm) above the plates].

3. Replace filler caps.

IMPORTANT: DO NOT overfill the battery. Electrolyte will overflow through the vent tube onto parts of the machine and **WILL** result in severe corrosion.

Cleaning the Terminals

If battery terminals are corroded, **remove battery** from the mower. Using a wire brush, remove corrosion with a solution of **one part baking soda and four parts water.** Rinse with clean water. Coat the terminals with petroleum jelly or terminal protector spray to retard further corrosion.

Charging the Battery

DANGER

BATTERIES PRODUCE EXPLOSIVE GASES

- **Charge the battery in a well-ventilated area, so that gases produced while charging can dissipate.**
- **Keep sparks, flames, and smoking materials away from the battery at all times.**
- **Make sure the battery cap vents are open (check manifold vent on each cap).**
- **Make sure the battery charger is unplugged before connecting or disconnecting cables to the battery.**

Check the battery charge by measuring the specific gravity of electrolyte; if specific gravity is less than 1.225, the battery will need to be charged as follows:

1. Charge the battery at 15 amps for 10 minutes. **DO NOT** exceed 20 amps maximum recommended charging rate. Charge until specific gravity is at least 1.250. Total charging time should not exceed one (1) hour.
2. After charging the battery, use drinking water to adjust the electrolyte level to the bottom of the vent wells [1/4 to 1/2 in. (6 to 13 mm) above the plates].

Tire Pressure

Inflate tires to pressures shown below:

Deck Caster Wheel	=	20 PSI (137 kPa)
Drive	=	15 PSI (103 kPa)
Tailwheel	=	20 PSI (137 kPa)

Wheel Nut Torque

Check the eight (8) Drive Tire mounting nuts. **Every 100 hours** they should each be torqued to 75 to 85 lb·ft (102 to 115 N·m).

Sharpen Mower Blades

Check mower blade(s) for **straightness, sharpness, condition of the cutting edge,** and **balance every 10 hours** of operation (or more often when mowing abrasive type grass or operating on sandy soils). **Replace blades if worn, bent, cracked, or otherwise damaged** (refer to **REPLACING/REPAIRING** the **Mower Blades** in this section). Use the following procedure to check and sharpen blades:

NOTE: Keep blades sharp - cutting with dull blades not only yields a poor mowing job but slows the cutting speed of the mower and causes extra wear on the engine and blade drive by pulling hard.

1. Stop the engine, remove ignition key, and disconnect the spark plug wire **before** raising the mower deck to service blades.
2. Raise the deck and **secure it** in the **TILT-UP** position (refer to **Deck Secured in TILT-UP Position** photo in **CLEANING** of **Grass Buildup in Mower Deck Housing** in this section).

DANGER

NEVER operate cutter blades with the deck in the raised position.

NOTE: PTO shaft must be **disconnected** before checking blades for straightness.

3. Check the blades for **straightness** by marking the blade tip position inside the deck housing, and then rotating the opposite end of the blade to the same position and comparing. If the difference in blade tip track is **more than 1/8 in. (3 mm),** the blade is bent and **should be replaced.**

⚠ WARNING

DO NOT try to straighten a blade that is bent. NEVER weld a broken or cracked blade. ALWAYS replace with a new blade to assure safety.

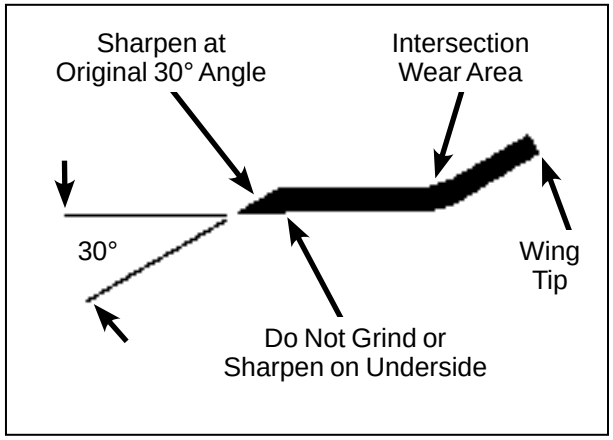
4. If the blade cutting edge is **dull or nicked,** it should be sharpened. Remove blades for sharpening by grasping the end of the blade using a rag or a thick, padded glove, while loosening and removing the nut, lock washer, and flat washer that mounts the blade.

5. Grind cutting edge at the same bevel as the original. Sharpen only the top of the cutting edge to maintain sharpness.

   NOTE: Blades can be sharpened with an electric blade sharpener, conventional electric grinder, or a hand file.

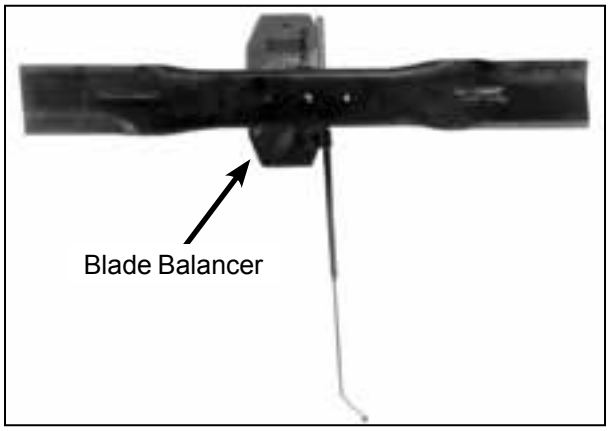
⚠ CAUTION

ALWAYS wear eye protection and gloves when sharpening a blade.



Mower Blade Profile for Sharpening

6. Check blade balance by positioning the blade **horizontally** on a blade balancer or use a nail or shaft through the center hole. If either end of the blade rotates downward, grind (remove) metal on that end until the blade will balance. The blade is properly balanced when neither end drops. Balance of a blade is generally maintained by removing an equal amount of material from each end of the blade when sharpening.



Blade Balanced on Magnetic Wall-Mounted Balancer

7. Mount the blade with wing tips pointing up into the housing. For **gear driven decks** reinstall the blade, washer, lock washer, and nut. **Tighten the nut to 60 lb·ft (81 N·m).** For **belt driven decks** reinstall the spacer (if applicable), blade, washer, and bolt. **Tighten the bolt to 70 lb·ft (90 N·m).**

NOTE: When reinstalling blades on **GHS** models, remember, the **blades** counter-rotate and the LH and RH blades must not be switched. Check for proper blade rotation before installing blades on the deck. Refer to **Blade Rotation** illustrations shown in **Clogging Checklist** in **Operating Instructions** for correct blade rotation.

Drive Belts

Raise the body and inspect the condition of the three (3) drive belts **after every 25 hours** of operation -- engine, PTO drive, and ground drive. If the belts show **signs of cracking or deteriorating,** the belts should be **replaced.** Refer to **REPLACING/REPAIRING** the **Drive Belts** in this section.

Mower Deck Gearbox Oil Seals

The mower deck gearbox seals should be inspected **every 25 hours** for evidence of oil leaking; **particularly the lower oil seal on the blade drive gearbox.** This seal is protected by the trash guard on the blade hub and seal protector plate on the housing, but is still vulnerable to seal damage due to operating in an adverse environment. The mower blade must be removed for inspection of the seal, so it is recommended to **inspect the gearbox seals when blades are removed for sharpening.** If an oil leak is noted, the seal should be replaced and the gearbox assembly relubricated. Refer to **LUBRICATION** for **Mower Deck Gearbox Lubrication** in this section.

Spark Plug

Every 100 hours, remove the spark plug, inspect, clean, and reset the gap (or replace with a **new plug**). Clean spark plug with a wire brush. If the electrodes are burned short or pitted, replace the plug (refer to **Specifications** for the proper type of replacement plug). Check the spark plug gap with a wire-type feeler gauge and set the gap between 0.028 and 0.032 in. (0.7 and 0.8 mm). Reinstall and tighten to 17 lb·ft (23 N·m).

Ignition

The Subaru engine is equipped with an electronic ignition. No breaker points, maintenance, or adjustments are necessary with this system. Contact an authorized Subaru engine dealer in case of ignition failure.

Fuel Lines and Clamps

Every year, inspect the fuel line from the tank to engine for deterioration or damage. Also, inspect the fuel line **clamps for tightness.** Good preventive maintenance calls for complete **replacement** of fuel lines and clamps **every two (2) years.**

Blade Brake Action

WARNING

It is important to check and maintain blade brake action for safe operation of the machine.

Check the function of the cutter blade brake and blower brake by engaging the blade clutch (PTO), operating the engine at full throttle, then disengaging the clutch and measuring how quickly the blades stop. Watch the rotation of the blade drive shaft and blower pulley as a visual indication that movement has stopped. If the brake is **working properly, all rotation will stop five (5) seconds after disengagement** of the clutch. If the brake system malfunctions - blades do not stop in five (5) seconds - adjust or repair the brake before operating the mower. Refer to **Blade Brake Band Adjustment** in **ADJUSTMENTS** in this section, or contact your authorized Walker dealer for this service.

Safety Switch System

> ***WARNING***
>
> **It is important to check and maintain the safety switch system for safe operation of the machine.**

There are three (3) safety interlock switches on the tractor; Seat Switch, FSC Neutral - Park Switch, and PTO Switch.

If any of the following conditions occur during starting or operating, a safety interlock switch may be malfunctioning. Contact your Walker dealer for troubleshooting and/or replacement.

- With or without an operator in the seat, the engine starts with the Forward Speed Control (FSC) and/or the PTO engaged.
- With or without an operator in the seat, with the Forward Speed Control (FSC) lever in Neutral-Park and the PTO clutch disengaged, the starter will not engage.
- With an operator in the seat, the engine starts but dies soon after the Forward Speed Control (FSC) or PTO is engaged.
- Without an operator in the seat, the engine starts and continues to run with the Forward Speed Control (FSC) and/or PTO engaged.

Forward Speed Control Friction Lock

The FSC friction lock is designed to **hold the selected forward travel speed** when the steering levers are moved and yet the friction is not too heavy to make **moving the FSC control** difficult (too much friction). The procedure for checking the FSC friction lock is as follows:

1. With the engine off, place the FSC in the full **FORWARD** position and pull both steering levers back; the FSC lever should not move. If the FSC lever moves back when the steering levers are pulled back, the **friction needs to be increased.**
2. With the steering levers held back, move the FSC lever back from the **FORWARD** position. With a proper amount of friction adjusted, the FSC lever should move back with a slight amount of resistance (friction). If the FSC lever movement is “stiff”, the **friction needs to be decreased.**

If the FSC friction lock needs to be adjusted. Refer to **ADJUSTMENTS** for **Step 7 -** *Forward Speed Control Friction Adjustment* in this section.

REPLACING/REPAIRING

DANGER

To prevent accidental starting of the engine when replacing parts or repairing the machine, remove the key from the ignition switch and disconnect the spark plug wire.

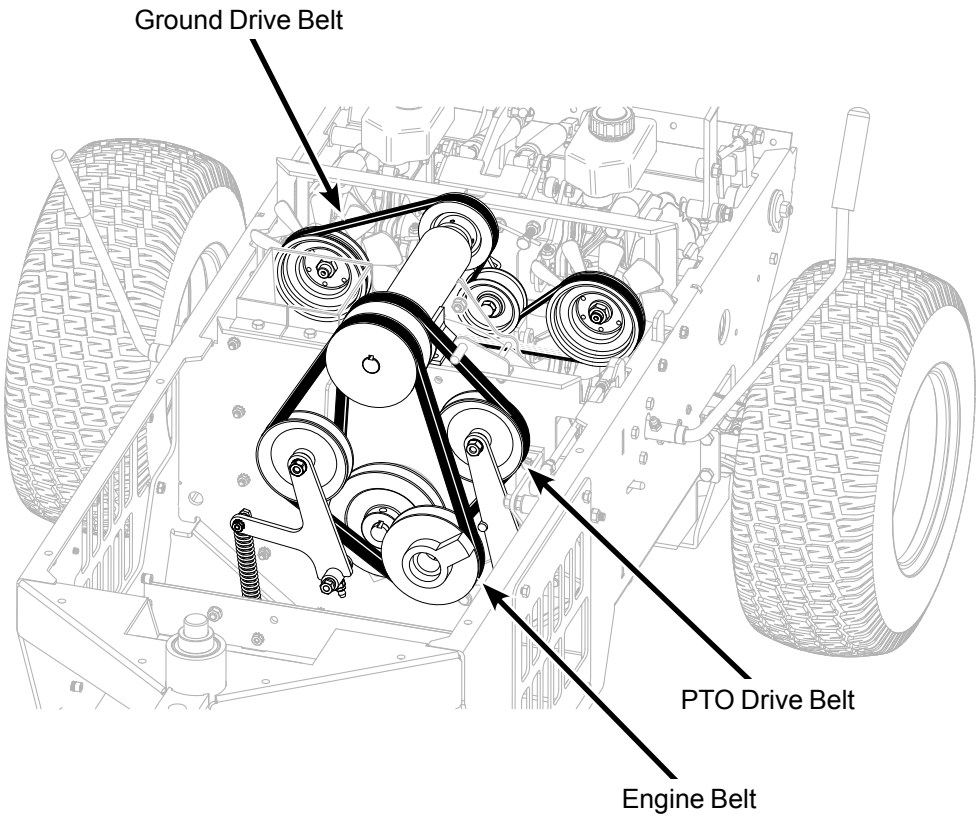
IMPORTANT: ALWAYS use genuine factory replacement parts. Substitute parts **CAN** result in product malfunction and possible injury to the operator and/or others.

Drive Belts

There are **three (3) individual belts** on the machine:

- Engine Belt
- PTO Drive Belt
- Ground Drive Belt

The belts may be removed and replaced using the **procedures described on the following pages.**



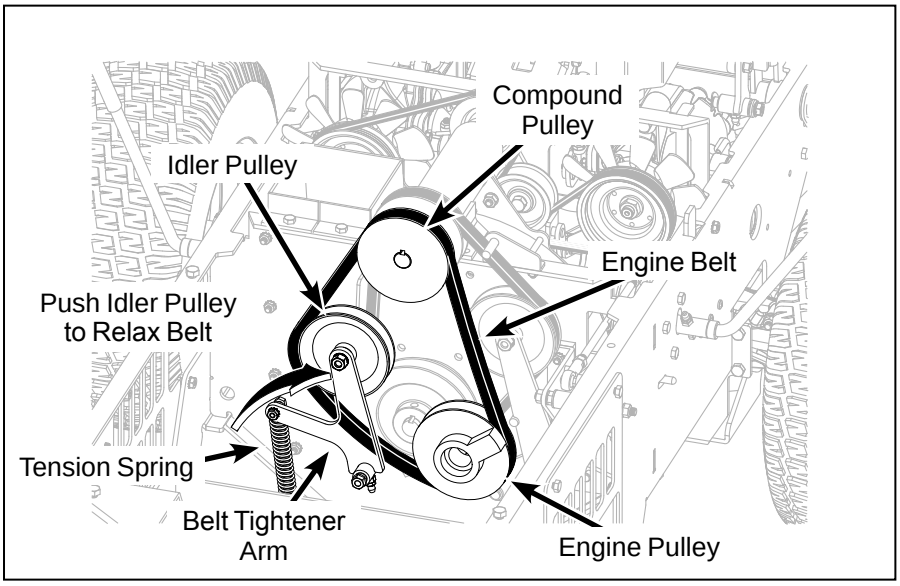
Belt Locations

Engine Belt

1. To remove the engine belt:

    a. Relax belt by depressing idler arm.

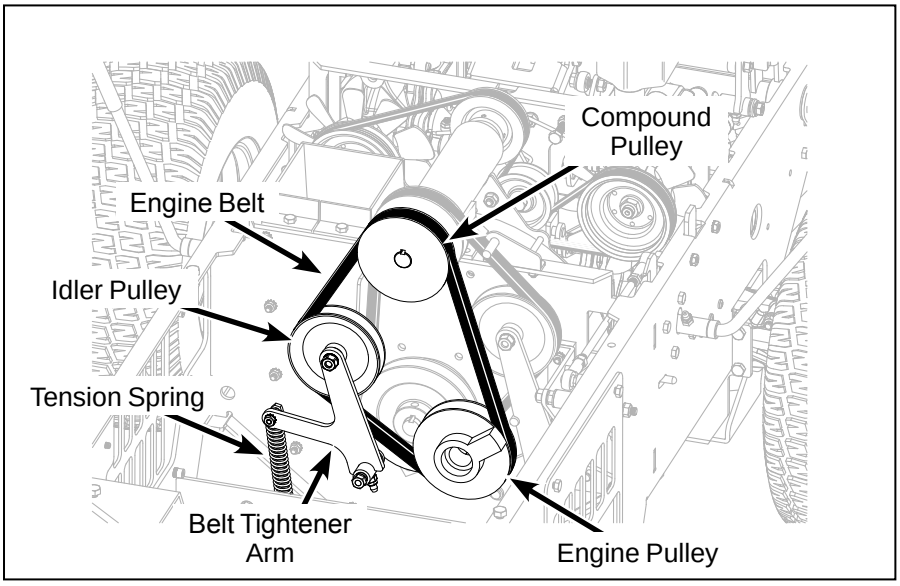
    b. Roll the belt off the pulleys and remove the belt, then slowly release the idler.



Engine Belt (Disengaged)

2. To replace the engine belt:

    a. Reverse the removal procedure to replace the engine belt.



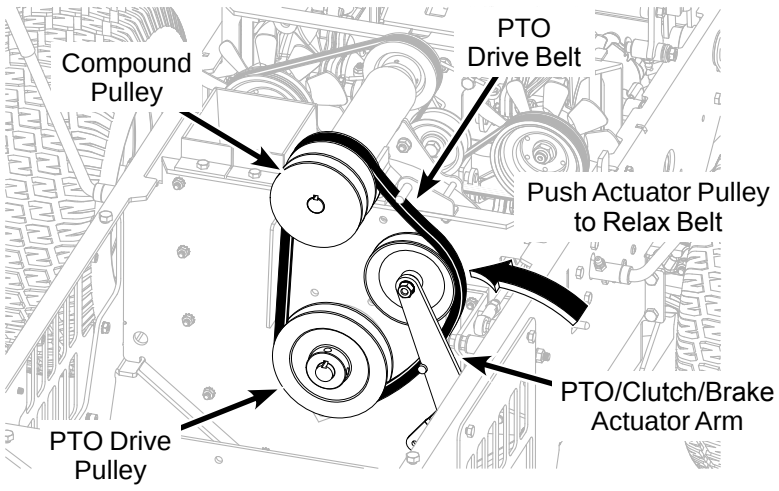
Engine Belt (Engaged)

PTO Drive Belt

1. To remove the PTO drive belt:

   a. Remove the engine belt, as described in previous section.

   b. With the PTO clutch disengaged, roll the belt off the idler pulley and remove the belt.

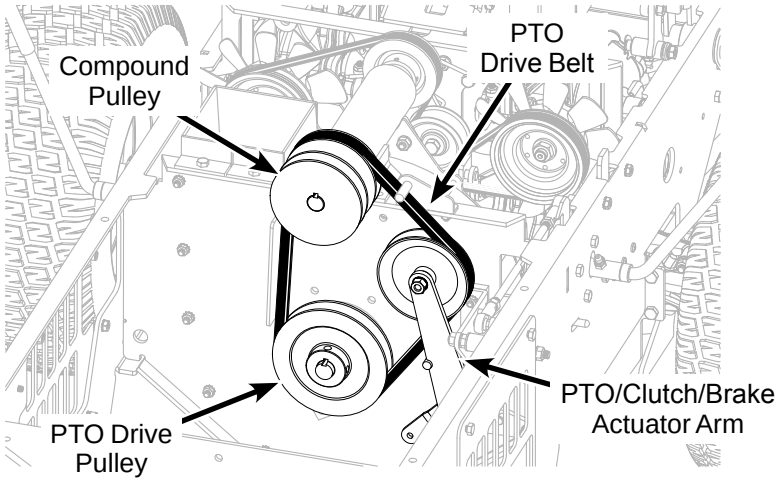


PTO Drive Belt (Disengaged)

2. To replace the PTO belt:

   a. Install the PTO drive belt by reversing the removal procedure. Replace engine belt.

NOTE: If installing a new PTO belt is difficult, the blade brake band adjustment nut might need to be loosened. If so, follow the **Blade Brake Band Adjustment** procedure in this section.



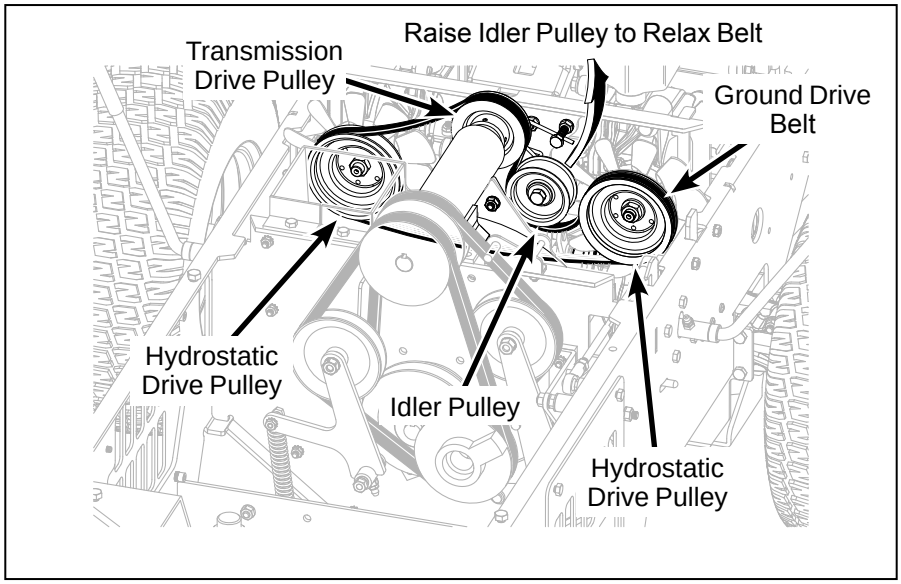
PTO Drive Belt (Engaged)

Ground Drive Belt

1. To remove the ground drive belt:

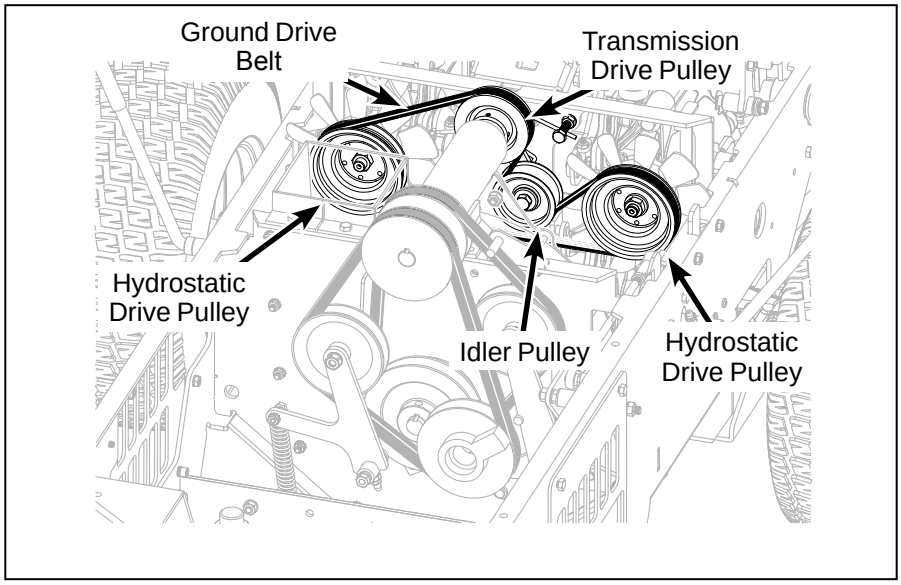
   a. Raise the spring-loaded idler to relax belt.

   b. Slide belt off pulleys, then slowly release the idler.



Ground Drive Belt Assembly (Disengaged)

2. Reverse the procedure to install the ground drive belt.

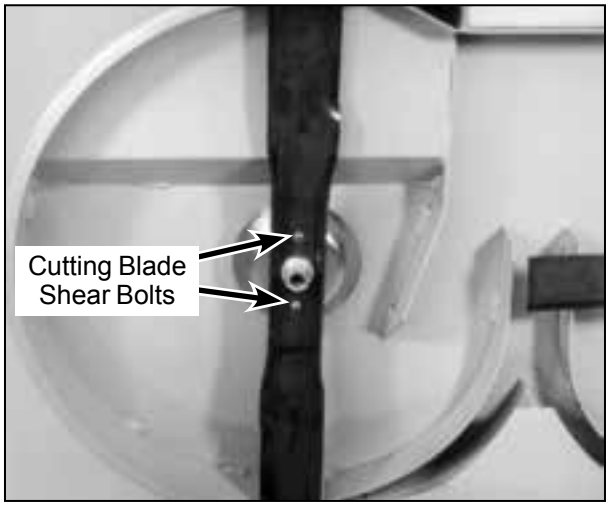


Ground Drive Belt Assembly (Engaged)

Blade Overload Shear Bolts

NOTE: Blade shear bolts are not used on belt driven decks.

On gear driven decks each cutting blade is keyed to a blade hub by **two (2) shear bolts** (10-24 x 5/8 in. stainless steel machine screws). These bolts are designed to shear and protect the blade drive gearbox from damage if the blade encounters a shock load.



Cutting Blade Shear Bolts

NOTE: Tightening the **5/8-18 blade mounting nut to 60 lb·ft (81 N·m)** is also important for proper shock load protection. It is important to **not overtighten** the mounting nut since this defeats (overrides) the function of the shear bolts.

If these bolts shear, remove the blade and install new bolts. Refer to **CHECKING/SERVICING** in this section for **Sharpen Mower Blades** which describes the blade removal and installation procedure.

After reinstalling the blade, check blade timing (on gear driven decks) by moving blades through **one (1) complete revolution.** Make sure blade tips pass clear of each other. If timing is incorrect, contact your Walker dealer.

PTO Shear Pin (If Equipped)

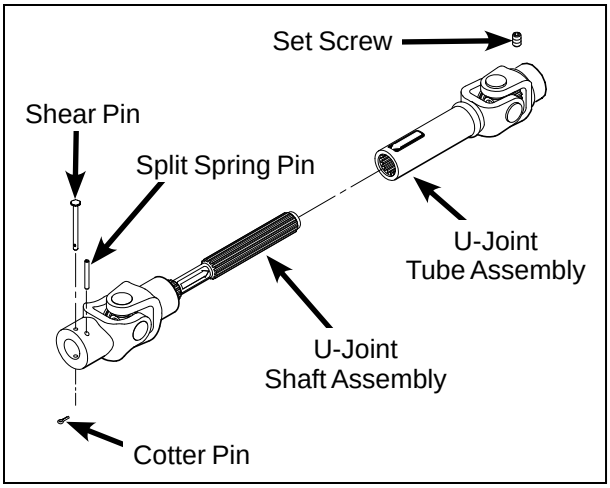
The PTO drive shaft connection to the deck gearbox has a shear pin to provide shock load protection to the mower deck drive. This system provides **primary shock protection** in case of blade impact and will normally shear before the individual shear bolts on the blade hub.

When the PTO pin has sheared, use the following procedure to replace it:

1. Loosen the two bolts securing the PTO shaft guard on the deck; lift the guard off. (Holes in guard are slotted for easy removal.)

2. Rotate U-joint on shaft to align the shear pin hole with the hole (and shear pin fragment) in the shaft. Use a punch to drive the remaining portion of the old shear pin out.

3. Install new shear pin and secure with cotter pin.



PTO Shear Pin

IMPORTANT: Use only Walker P/N 8067-13 shear pins for replacement to provide proper shock protection -- these pins are hardened to shear under a specific amount of load.

4. Reinstall the PTO shaft guard.

Before operating the deck, inspect the blade overload shear bolts and also check blade timing (on gear driven decks) by moving blades through **one (1) complete revolution.** Make sure blade tips pass clear of each other. If timing is incorrect, contact your Walker dealer.

Mower Blades

Mower blades are removed and remounted as described in **Sharpen Mower Blades** instructions (refer to **CHECKING/SERVICING** in this section). During the course of sharpening and inspecting mower blades, if there are **any of the following conditions of wear or damage, blades should be replaced** for reasons of safety and performance of the machine:

- An excessive amount of the **flat section** of the blade has been **ground away** (removed) when the blade is sharpened. Replace the blade **when less than a 3/4 in. (19 mm) flat section remains** at the blade tip.

- Examine ends of the blade carefully, especially the intersection where the flat section of the blade turns up to form the "wing tip" (refer to **CHECKING/SERVICING** for **Mower Blade Profile for Sharpening** illustration in **Sharpen Mower Blades** instructions). Since sand and abrasive material can wear metal away in this area, the blade should be **replaced when metal thickness has worn to 1/16 in. (1.6 mm) or less.**

DANGER

When blades are operated over sandy soil, and if blades are allowed to wear, a "slot" may be worn into the wing tip of blade. Eventually a piece of the blade may break off creating a serious potential for injury or damage.

- Check the blades for **straightness** by marking blade tip position inside the deck housing and then rotating the opposite end of the blade to the same position and comparing. If the difference in blade tip track is **more than 1/8 in. (3 mm),** the blade is bent and **should be replaced.**

- Inspect the blade surface, especially in formed areas, for **cracks.** Replace the blade if any cracks are found.

WARNING

DO NOT try to straighten a blade that is bent. NEVER weld a broken or cracked blade. ALWAYS replace with a new blade to assure safety.

Reinstall the blades following procedure from **Sharpen Mower Blades** instructions in **CHECKING/SERVICING** in this section. If blades are replaced, always use **Walker original equipment blades** to ensure safety and optimum performance. The quality and performance of **replacement blades offered by other manufacturers** cannot be guaranteed, they **could be dangerous.**

CAUTION

ALWAYS use genuine factory replacement parts. Substitute parts CAN result in product malfunction and possible injury to the operator.

ADJUSTMENTS

Transmission Control

IMPORTANT: The proper adjustment of the transaxle control stops is **essential** for efficient operation and life of the transaxle. These stops are properly adjusted at the factory and should only require readjustment if the transaxle or related control linkage is removed or changed.

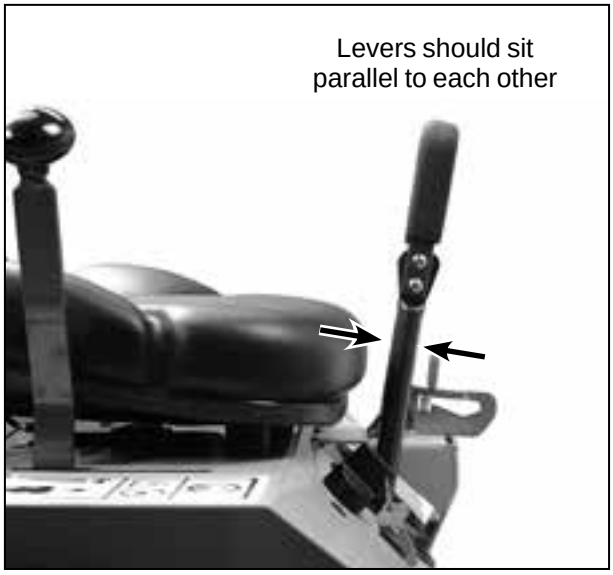
NOTE: It would not be unusual for a new machine, after the initial 5 or 10 hours of operation, to begin to not travel straight (this is due to the break-in of the transaxles). To fine tune tracking, refer to **Step 5 -** *Straight Tracking Adjustment* in this section.

Step 1 - *Steering Lever Position Adjustment*

NOTE: For proper operation, the steering levers should be adjusted to sit evenly using the following procedure.

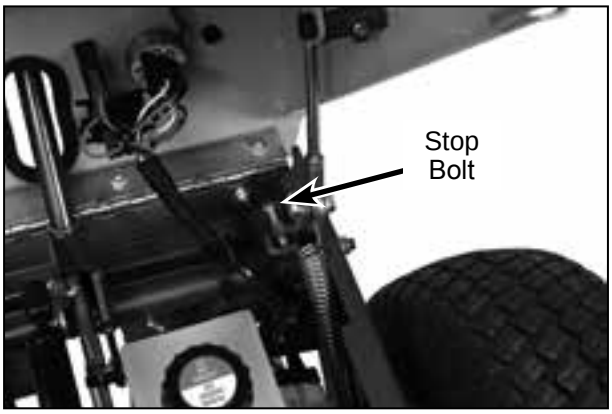
1. Examine the steering levers to make sure they are **parallel front to back** in relation to one another. If they are not equal, adjust accordingly. (The handles may or may not be even at this point.)

   NOTE: The **LH steering lever is non-adjustable.** This procedure will require adjustment of the RH lever to make it even with the LH lever.



Lever Alignment

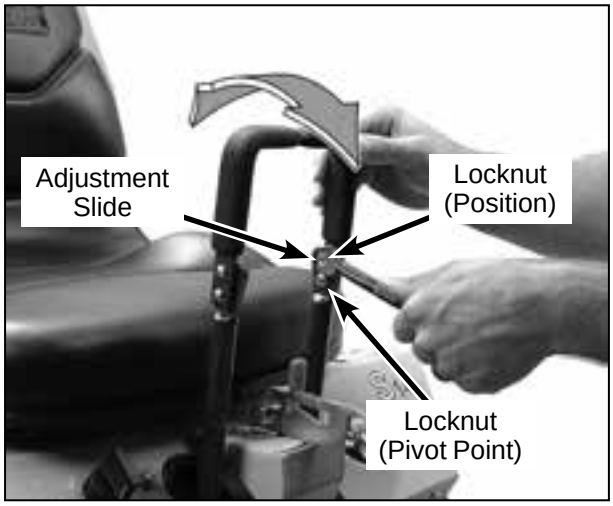
2. Adjust the position of the RH lever by turning the stop bolt in the Speed Control Actuator in or out. Turning the stop bolt in will make the RH lever move back, and turning it out will make it move forward. Tighten the locknut.



Stop Bolt Location

Step 2 - *Steering Handles Adjustment*

1. An adjustment range of approximately 3 in. (76.2 mm) is available on the steering handles - the handles can be adjusted forward or aft depending on the arm length of the operator. The handles can be adjusted by loosening the locknut at the pivot point and the locknut holding the handle in position in the adjustment slide. Adjust the handles into the most comfortable position and tighten both locknuts.

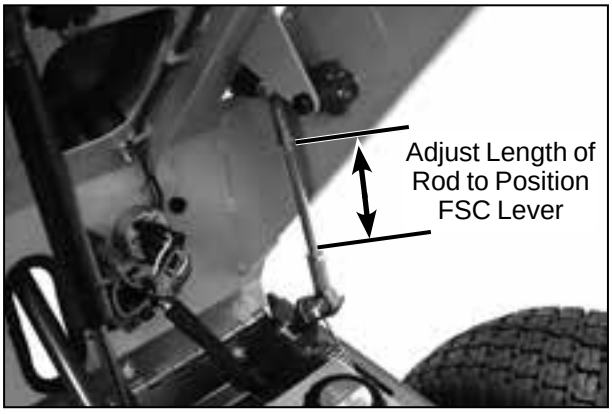


Steering Handles Adjustment

Step 3 - *Neutral Position Adjustment*

1. With the Forward Speed Control (FSC) in **NEUTRAL-PARK,** the lever should be straight up. Adjust by loosening the jam nuts on the FSC Rod and turn the rod to attain the straight up position. Tighten the jam nuts.

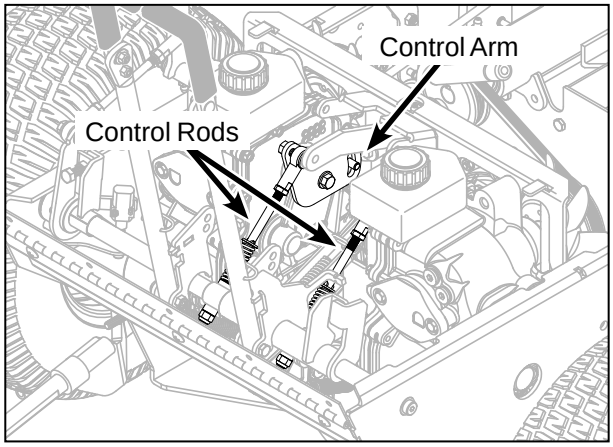
Correct FSC Lever NEUTRAL-PARK Position



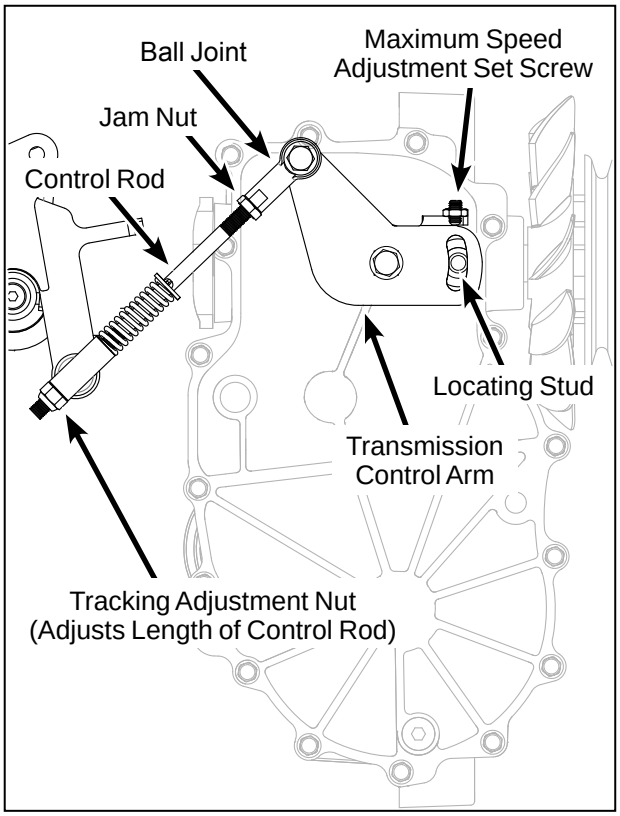
FSC Lever Position Adjustment

2. Securely block the tractor up so the drive tires are off the ground.

3. Adjust the tracking adjustment nuts at the front of both control rods so that 2 or 3 threads are visible, then loosen the jam nuts on the ball joints at the back of the control rods.



Transmission Control Rod and Arm Location (Front Body Hidden for Clarity)



Tracking Adjustment Components

WARNING

The following adjustments are made with the engine running. Keep all body parts and tools away from rotating and hot components, and secure all loose clothing.

4. With the body lowered and the FSC in **NEUTRAL-PARK,** start the engine. With the engine at normal operating speed, check for movement of the drive wheels.

5. Lift the body to access the steering adjustment components.

   NOTE: It may be necessary to tighten the FSC friction adjustment if the transmissions are moved out of neutral when the body is raised. Refer to **Step 7 -** *Forward Speed Control Friction Adjustment* later in this section for location of the FSC friction adjustment nut.

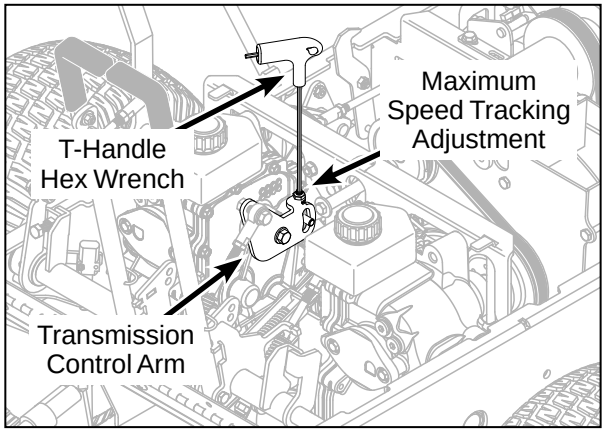
6. Using a wrench on one tracking adjustment nut, rotate the control rod **clockwise** just until the wheel on that side begins **to move forward.** Then, counting the turns required, rotate the control rod **counterclockwise** just until the wheel stops and then begins **to move in reverse.** Rotate the control rod back clockwise half the number of turns required to make the wheel go from moving forward to reverse. The transmission is now centered in the neutral window. Tighten the jam nut on the ball joint and repeat the same procedure on the other transmission.

7. Turn off the engine, and then lower the drive tires onto the ground.

Step 4 - *Full Forward Speed Adjustment*

1. Move the FSC to the full **FORWARD** speed position.

2. Raise the body. The maximum speed tracking adjustment set screw in both transmission control arms should not be contacting the limit stud on the transaxle. If they are, back the set screws out until they do not touch.



Maximum Speed Tracking Adjustment (Shown with Parts Removed for Clarity)

Step 5 - *Straight Tracking Adjustment*

1. Sit in the seat, start the engine, set throttle at full speed, and with the FSC in the **NEUTRAL-PARK** position check for movement of either drive wheel (if either wheel moves backward or forward, refer to **Step 3 -** *Neutral Position Adjustment* and readjust).

2. Check for straight ground tracking on a level surface (with hands off the steering levers). Set the FSC at several different speeds and observe if the machine moves in a straight line (use cement joint or other line on ground for reference).

3. If tracking is not straight, shorten the control rod on the faster side by turning the tracking adjustment nut clockwise. If straight tracking and neutral are both achieved proceed to the next step. If straight tracking and neutral cannot both be achieved, turn the tracking adjustment nut on the faster side counterclockwise until neutral is restored. Then, lengthen the control rod on the slower side by turning the tracking adjustment nut counterclockwise until straight tracking and neutral are both achieved.

   IMPORTANT: After tracking adjustments are complete, confirm that there is at least one (1) thread visible on both control rods past the tracking adjustment nuts.

4. If the machine is tracking straight throughout the speed range except at maximum speed, use the following adjustment procedure:

   a. With the engine off, place the FSC in full **FORWARD.** On the faster transmission, loosen the jam nut and turn the maximum speed tracking adjustment set screw in until it just contacts the limit stud, and then turn it in an additional 1/8 turn (turning the set screw in slows the drive wheel).

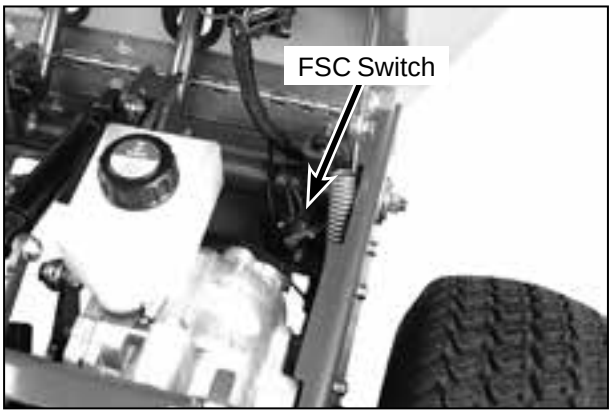
   b. Recheck maximum speed tracking, and if necessary continue adjusting the set screw in small increments until straight travel is achieved.

   c. Tighten the jam nut.

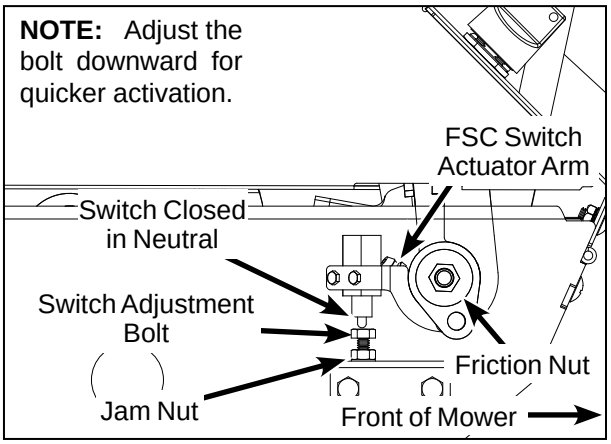
Step 6 - *FSC Neutral Switch Adjustment*

1. Place the FSC lever in the **NEUTRAL-PARK** position. Raise the body and adjust the switch adjustment bolt up until it just makes contact with the FSC switch plunger, and then turn the switch adjustment bolt up an additional two (2) turns and tighten the jam nut.

   NOTE: It may be necessary to tighten the FSC friction adjustment if the transmissions are moved out of neutral when the body is raised. Refer to **Step 7 -** *Forward Speed Control Friction Adjustment* later in this section for location of the FSC friction adjustment nut.



FSC Neutral Switch Location



FSC Neutral Switch Adjustment (Side View Through Chassis)

> ***CAUTION***
>
> **Before testing the FSC Neutral Switch, disconnect the spark plug wire from the engine and engage the parking brake to prevent accidental starting and inadvertent machine movement.**

2. Check operation of the FSC Neutral Switch by placing the FSC lever in the full **FORWARD** position. While holding the ignition switch in the **START** position, slowly move the FSC lever toward the **NEUTRAL-PARK** position and stop when the starter motor engages. Note the position of the FSC lever where it passes through the slot in the body. The FSC lever should be within 1/8 in. (3 mm) of the **NEUTRAL-PARK** position. If this distance is greater than 1/8 in. (3 mm), turn the adjustment bolt down slightly and recheck switch operation. When finished adjusting, tighten the jam nut and reconnect the spark plug wire.

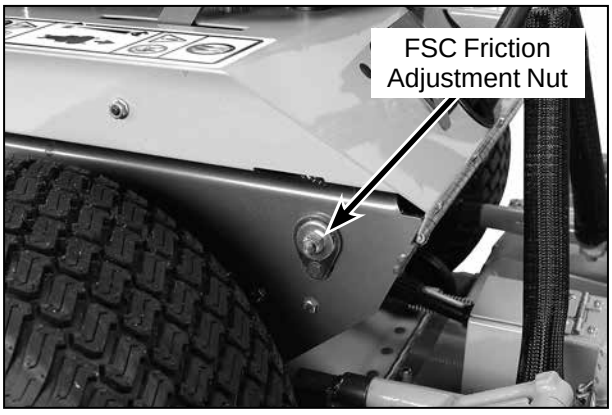
Step 7 - *Forward Speed Control Friction Adjustment*

FSC Friction Adjustment Test

1. Place the FSC lever in the full **FORWARD** position, and pull both steering levers fully back; the FSC lever should not move. If the FSC lever moves back the **friction needs to be increased.**

2. With the steering levers held back, move the FSC lever back from the **FORWARD** position. With a proper amount of friction adjusted, the FSC lever should move back with a slight amount of resistance (friction). If the FSC lever movement is “stiff”, the **friction needs to be decreased.**

3. The FSC friction is **increased** or **decreased** by **tightening** or **loosening** the **friction adjustment nut.** Loosen or tighten the nut and check the control function until the conditions of both steps 1 and 2 (above) are met.



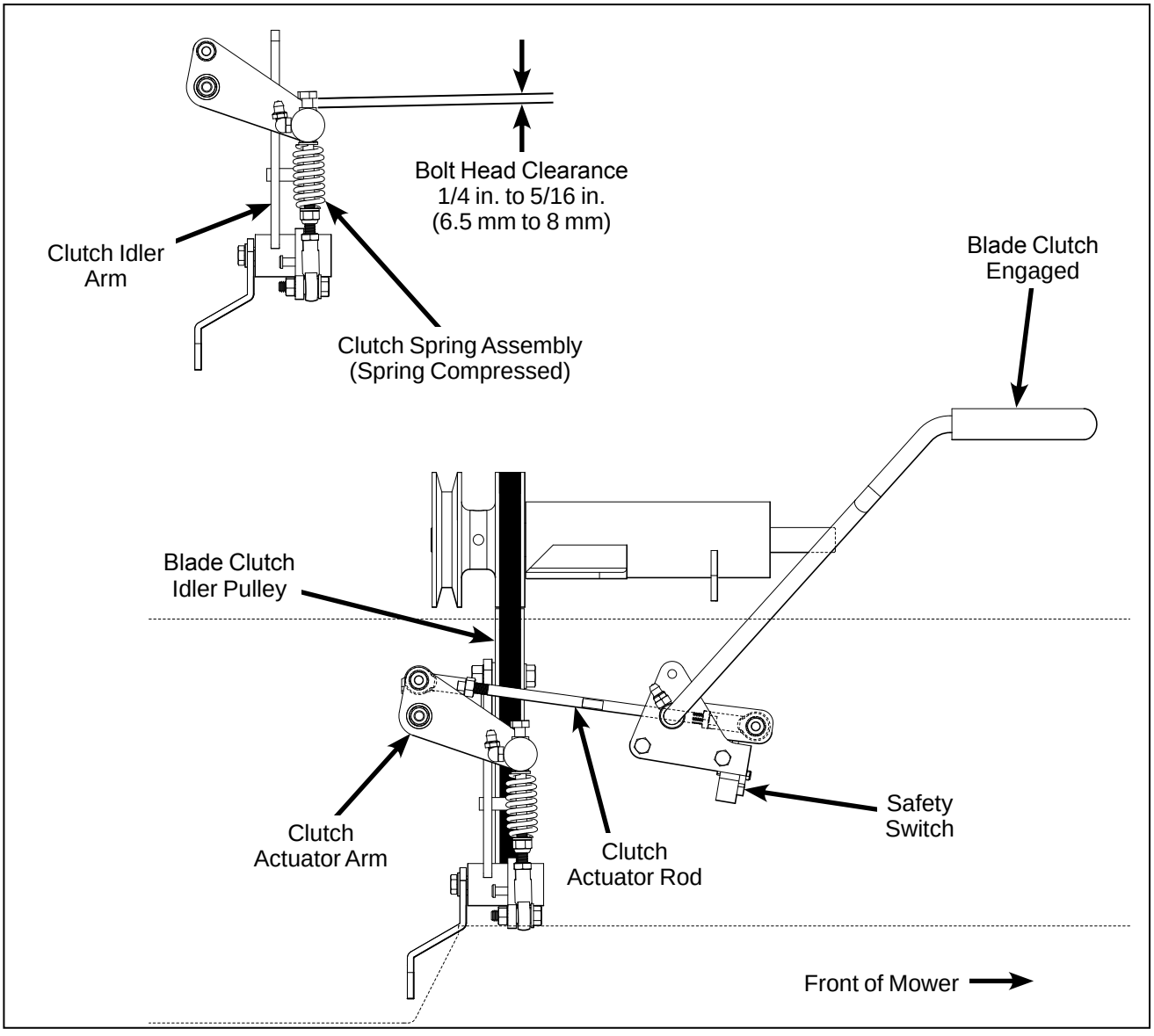
FSC Friction Adjustment Nut

Blade Clutch (PTO)

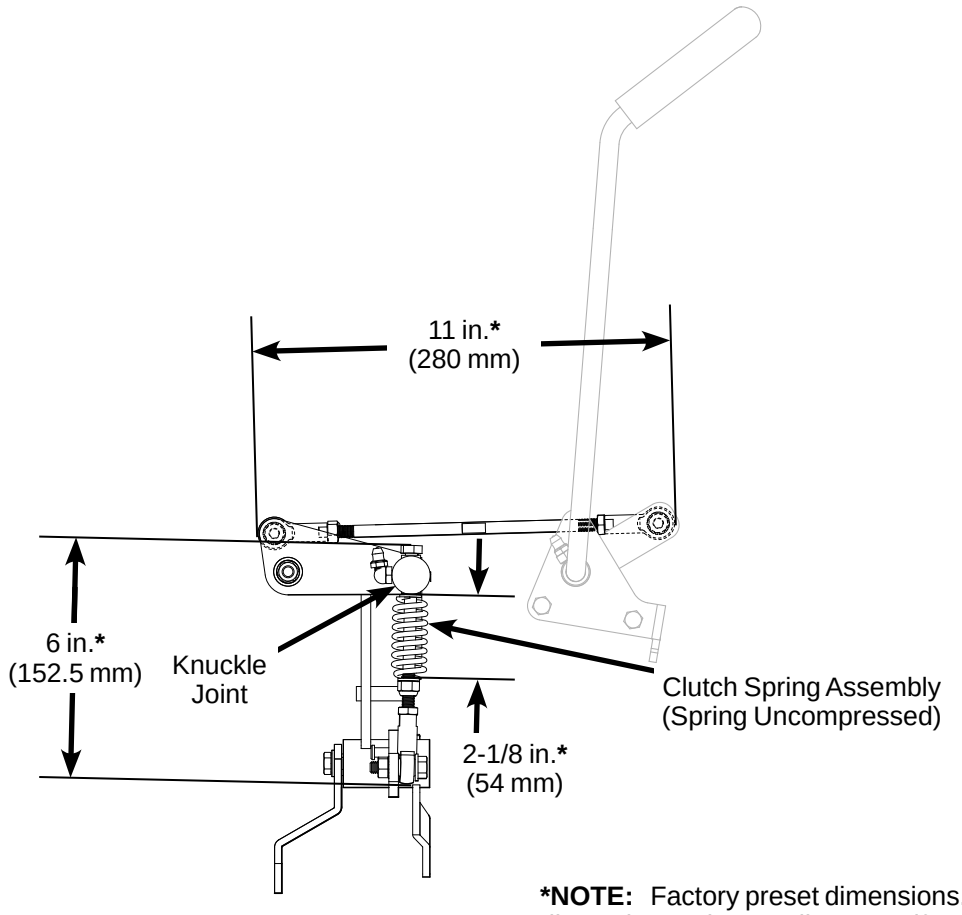
Clutch Engagement/Belt Tension

The clutch engagement and PTO belt tension are adjusted using the clutch actuator rod. After installing a new PTO belt, **after 10 hours and every 100 hours thereafter,** check and adjust for the clutch spring assembly bolt head clearance dimension as shown in the **PTO Clutch Engaged** illustration. If the clutch actuator rod or clutch spring assembly have been disassembled, first reset them to their factory preset lengths (see **PTO Clutch Disengaged** illustration) and then proceed with adjustment as follows.

With the clutch engaged, adjust the length of the clutch actuator rod to achieve a clutch spring assembly bolt head clearance of 1/4 in. to 5/16 in. (6.5 mm to 8 mm). To adjust the clutch actuator rod length, loosen both ball joint jam nuts (one ball joint will have LH threads) and **shorten** the rod to **increase** the clutch spring assembly bolt head clearance, or **lengthen** the rod to **decrease** the bolt head clearance. If adjustments are needed more frequently than every 100 hours to maintain dimensions, it may suggest problems with pulley wear or belt misalignment.



PTO Clutch Engaged



***NOTE:** Factory preset dimensions. Reset to these dimensions prior to adjustment if components have been disassembled.

PTO Clutch Disengaged

Blade Brake Band Adjustment

The blade brake is designed to stop the blades within five (5) seconds after clutch disengagement. **Every 100 hours of operation** verify correct performance of the blade brake by following the procedure in **CHECKING/SERVICING** the **Blade Brake Action** in this section.

WARNING

It is important to check and maintain blade brake action for safe operation of the machine.

Adjust the working travel of the clutch idler pulley by adjusting the brake band nut:

1. With the clutch disengaged, adjust the blade brake band nut to achieve a 1/4 in. to 3/8 in. (6.5 mm to 9.5 mm) gap between the PTO pulley and clutch idler pulley as shown in the **Blade Brake Band Adjustment** illustration.

   NOTE: As the blade brake band/drum wears, idler pulley travel will increase and it will be necessary to adjust the brake band nut to maintain the correct 1/4 in. to 3/8 in. (6.5 mm to 9.5 mm) gap. If the gap is greater than this in the disengaged position, the PTO belt may not declutch adequately. **Every 100 hours of operation** check the pulley gap and adjust if necessary.

2. After adjustments are complete, verify blade brake performance by following the procedure in **CHECKING/SERVICING** the **Blade Brake Action** in this section. If the blades do not stop within five (5) seconds, check the following:

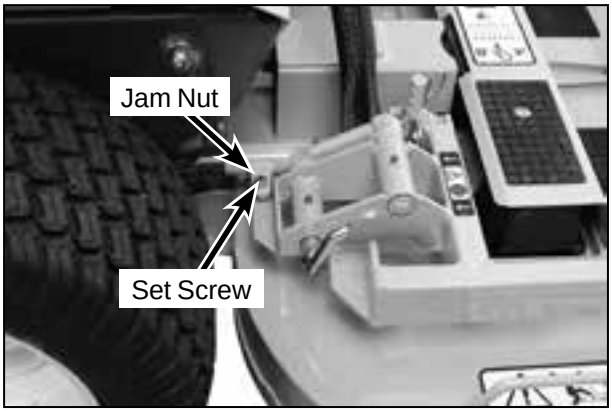
   a. Make sure clutch and brake linkages are working freely (no binding).

   b. Check the brake band and PTO pulley brake drum for wear. Replace any components that are excessively worn.

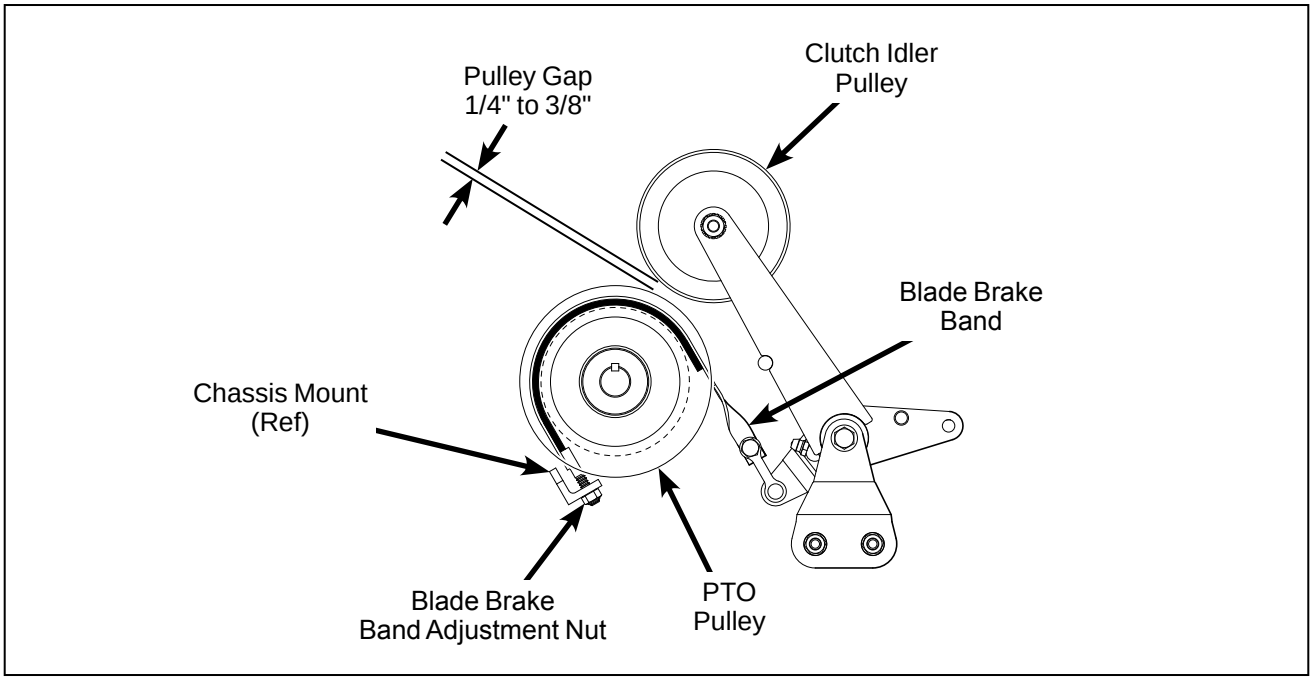
   c. Verify that the PTO belt is declutching completely from the pulleys.

Tilt-Up Deck Adjustable Stop

When the carrier frame hinge joint is properly adjusted, the deck lock levers should move in and out of the engaged and disengaged positions freely. All four hitch pins used for height adjustment should sit flush on the washers above the deck pin bushing. On a level surface, if any pin is sticking up (likely the front pins), tighten the opposite side or loosen the same side to lower the pin. Adjustments are made by loosening the jam nut and tightening or loosening the set screws on the Deck Mount Pivot Brackets. Retighten the jam nut when the adjustment is complete.



Tilt-Up Deck Adjustable Stop



Blade Brake Band Adjustment (Clutch Disengaged)

GHS "Full" Signal Horn Adjustment

⚠ *DANGER*

PINCH POINT - SPRING LOADED DOOR

When lowering the door on the GHS catcher, BE VERY CAREFUL to keep hands, fingers, etc. out of the hinging mechanism and away from the door frame as the door closes. The springs that hold the door closed during operation are very powerful, and the door can slam shut with considerable force.

The vertical position of the Grass-Pak® switch is critical to make sure the catcher box does not overfill causing the delivery chute to clog. The vertical position can be adjusted by moving the aluminum shaft and vane on the Grass-Pak® switch.

1. Position the discharge chute so that it is pointing straight back.

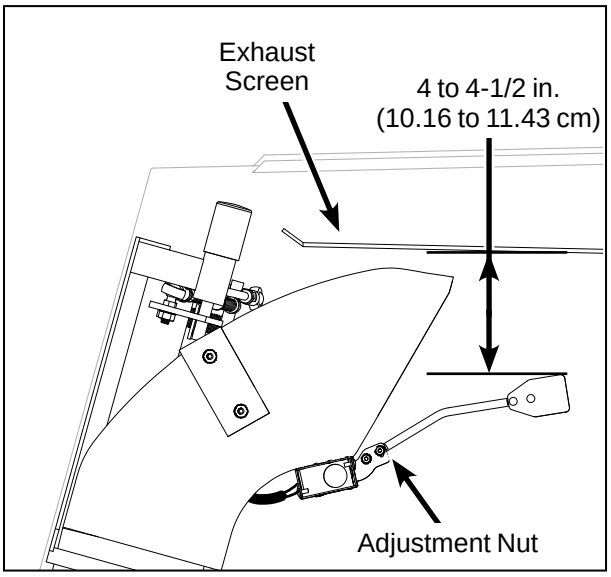
   a. Turn the ignition switch **ON (RUN)** and move the blade clutch to the **ENGAGED** position (engine not running).

   b. Open the catcher back door and monitor the spout position (as it oscillates) and move the blade clutch to the **DISENGAGED** position and turn the ignition switch to the **OFF** position.

⚠ *WARNING*

DO NOT test the Grass-Pak® switch with the engine running. Projectiles CAN be thrown out of the grass delivery spout and CAN cause serious injury to bystanders or property damage.

2. Measure from the exhaust screen (top of catcher) to the top of the Grass-Pak® switch actuator vane, refer to **Adjusting the Grass-Pak® Switch** illustration. The proper measurement should be between 4 and 4-1/2 in. (10.16 and 11.43 cm).



Adjusting the Grass-Pak® Switch (Side View of Catcher Box)

3. If adjustment is required, loosen front adjustment nut then move aluminum shaft and vane to the recommended measurement. Adjustments should be done in very small increments checking the measurement each time until the recommended measurement is achieved.

NOTE: It will not be possible to adjust the switch to give a signal at the precise instant the catcher is full for a wide variety of mowing conditions. For example, wet heavy grass will fill the catcher differently than dry fluffy grass, causing the signal to come on a little sooner or later than usual. Primarily, the switch should be adjusted to give the "full" signal with a **little advance warning before overfilling and clogging** of the grass delivery chute begins (regardless of mowing conditions).

Operator’s Notes

Operator’s Notes

LIMITED WARRANTY
FOR
WALKER MODEL S14
RIDER MOWER

1. WHAT THIS WARRANTY COVERS, AND FOR HOW LONG:

Walker Manufacturing company will, at its option, repair or replace, without charge, any part covered by this warranty which is found to be defective in material and/or workmanship within one (1) year* after date of sale to the original retail purchaser unless the product is used for rental purposes, in which case this warranty is limited to ninety (90) days. At Walker's request, customer will make the defective part available for inspection by Walker and/or return the defective part to Walker, transportation charges prepaid. All parts and components of the Walker Mower are covered by this warranty **except** the following components which are warranted separately by their respective manufacturers:

Subaru Engine
Battery

The available warranties covering these items are furnished with each mower. Walker does not assume any warranty obligation, liability or modification for these items, which are covered exclusively by the stated warranty of the respective manufacturers noted above.

* A two (2) year or 2000 hour (whichever comes first) warranty is offered for Hydro-Gear ZT3100 hydrostatic transmissions; covers full cost of replacement up to 1000 hours of use, and after 1000 hours warranty coverage is prorated against 2000 hours.

2. WHAT THIS WARRANTY DOES NOT COVER:

A. This warranty does not cover defects caused by depreciation or damage caused by normal wear, accidents, improper maintenance, improper use or abuse of the product, alterations, or failure to follow the instructions contained in the Operator's Manual for operation and maintenance.

B. The customer shall pay any charges for making service calls and/or for transporting the mower to and from the place where the inspection and/or warranty work is performed.

3. HOW TO OBTAIN SERVICE UNDER THIS WARRANTY:

Warranty service can be arranged by contacting the dealer where you purchased the mower or by contacting Walker Manufacturing Company, 5925 East Harmony Road, Ft. Collins, CO 80528. Proof of the date of purchase may be required to verify warranty coverage.

4. WARRANTY LIMITATION:

A. **THERE IS NO OTHER EXPRESS WARRANTY. ANY WARRANTY THAT MAY BE IMPLIED FROM THIS PURCHASE INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IS HEREBY LIMITED TO THE DURATION OF THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

B. **WALKER WILL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES AND/OR EXPENSES IN CONNECTION WITH THE PURCHASE OR USE OF THE MOWER.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to you.

C. Only the warranty expressed in this limited warranty shall apply and no dealer, distributor, or individual is authorized to amend, modify, or extend this warranty in any way. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by Walker, and should not be relied upon.

D. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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